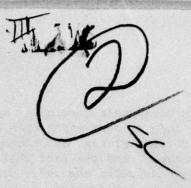
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AFFDL-TR-77-122 VOLUME II APPENDIX A

AN AUTOMATED PROCEDURE FOR COMPUTING THE 49 THREE DIMENSIONAL TRANSONIC FLOW OVER WING-BODY COMBINATIONS, INCLUDING 42 VISCOUS EFFECTS 20

VOLUME II PROGRAM USER'S MANUAL AND CODE DESCRIPTION APPENDIX A – COMPUTER CODE LISTING AND FLOWCHART 56

GRUMMAN AEROSPACE CORPORATION BETHPAGE, NEW YORK 11714

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FEBRUARY 1977

TECHNICAL REPORT AFFDL-TR-77-122, VOLUME II FINAL REPORT FOR PERIOD 1 MAY 1975 - 1 OCTOBER 1977

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This technical report has been reviewed and is approved for publication.

J. Kenneth Johnson Project Engineer Dr. Thomas M. Weeks

Supervisor

FOR THE COMMANDER

Alfred C. Draper

Assastant for Research and Technology

A romechanics Division

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AIRCRAFT AERODYNAMICS
JETS, WAKES AND VISCID-INVISCID FLOW INTERACTIONS
SUBSONIC AND TRANSONIC FLOW

This appendix volume contains the program listing and flowchart for the program described in Volume I and Volume II.

The program is a numerical method that predicts the detailed pressure distribution on wing-body combinations at transonic Mach numbers less than one and integrates the pressures to obtain aircraft force and moment data. The code has been developed with the intent of providing the user with an easy to use and reliable tool. The basic inviscid prediction method is

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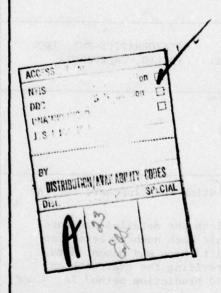
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## 20. ABSTRACT (Continued)

the modified transonic small disturbance theory program developed by Ballhaus, Bailey and Frick. In order to provide accurate surface pressure predictions on the wing, several additional features of the typical transonic flowfield have been incorporated. These consist of the viscous displacement effect, local strong viscous interaction at the shock wave foot and at the trailing edge (including an approximate treatment of local shallow separations), and finally, the interaction effect of the fuselage.



#### FOREWORD

This final report was prepared by the Aerodynamics Section of the Grumman Aerospace Corporation, Bethpage, New York for the Flight Mechanics Division, Air Force Flight Dynamics Laboratory, Wright-Patterson Air Force Base, Ohio. The work was performed under Contract No. F33615-75-C-3073, which was initiated under Project No. 1476, "Advanced Wing-Body Aerodynamic Analysis and Design." Mr. J. Kenneth Johnson (FXM) was the Project Monitor of this contract.

The report consists of three volumes. Volume I, entitled "Description of Analysis Methods and Applications," describes the methods used to predict surface pressure distributions and aerodynamic forces on three-dimensional wingbody combinations at transonic speeds, including viscous effects. Volume I also contains an extensive set of comparisons between numerical predictions and experimental results. Detailed instructions required to use the program are provided in Volume II, "User's Manual and Code Description." Volume III was written at Sybucon, Inc., Atlanta, Georgia and contains a complete description of the theory and program that computes the full three-dimensional boundary layer over the wing. This work was performed by Sybucon under subcontract to Grumman Aerospace. Although this program operates independently of the program described in Volume II, the input data set required for the full three-dimensional boundary layer computation is generated by the code documented in Volume II.

Mr. F. Berger was the Program Manager; Dr. W. Mason and Mr. D. MacKenzie served as Project Engineers. The work was performed in close cooperation with the co-authors from the NASA Ames Research Center, Dr. W. F. Ballhaus and Ms. J. Frick. Additional contributors to the project included G. Simpers, A. Vachris, D. Raila, P. Aidala, M. Sturm and A. Bunnell of Grumman, and Drs. F. R. Bailey and T. Holst of NASA Ames. Moreover, contributions have been made by A. Chen of Boeing, Drs. R. Melnik, B. Grossman and G. Volpe of the Grumman Research Department and Grumman Consultants Prof. A. Jameson, Prof. J. Werner and Dr. E. Murman. As noted above, the three-dimensional boundary layer program was written by Dr. J. Nash and Dr. R. Scruggs of Sybucon, Inc.

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### SUMMARY

This Appendix Volume contains a listing of the program described in Volumes I and II. A flowchart of the IBM Version is also included. The user should consult Volume I for a description of the method and Volume II for the details of program operation and program documentation.

The flowchart was made automatically by a software package known as Autoflow II and available at the Grumman Data Systems.

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	v	XX0(12.10)	. XXI(12.10)	DXR0(12)	. DXR1(12) .	AIRFOITO	
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	· W	MTIPXI	XEWX(30)	XTEWX(30)	· CORDX .	CHORD 1	
		CAV	XOX	XLEWP(30)	. XTEWP(30) .	VSCFX3 1	
	٥	KSWICH				VSCF X3 2	
15N 0009	COMMON / BODY! /	XNOSE	XTATL	NB PN (23	. XRIN(2.35).	PODA 2	
	•	NBODS	JRUP(2)	JBDN(2)	NOSE	BODY 3	
		TATE	A PHAR	NAPTS(90)	. B(90)	BODY A	
		1111	2011	101101		- Anna	

LEVEL 2.2 (SEPT 76)	SEPT 763	•	FLAGS	092/30	FOR TRAN	05/360 FORTRAN H EXTENDED		DATE 77.295/15-11-37	PAGE
	-	TUGGI	/13 /					PMSFX 9	
SN 0026	•	DATA F	/1. /. SHIF	1 .01				BLKD AT 32	
15N 0027	•	DATA DXL	1.008/. DXT	1.020/	DXMX	1.030/. XDS1	/1.88/.	PMSFX 10	
	-	1 XLG 70.44	1.0XL1/0.020/	DXTIVO	140. DX	WIL 0.075/.		FIXCES 1	
	2	XDSTI	/11. /. xt.61	18. /				RMSFX 12	
15N 0028	•	NATA RELBL	1.6 / EXTIN	1 76-100	EXTNO	/1. /. AFCB	11/1. /.	BLKD AT 36	
	-	AFCBL	2/0. /					BLKD AT37	
1SN 0029	•	DATA YRB A	YRB /0.0 /.ZWNGML /0.0/	10.01				BLKD AT 38	
	v							BLKD AT39	
ISN 0030		200						RLKDAT40	

\*OPTIONS IN EFFECT\*NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBBL(MONE)

\*STATISTICS\* SOURCE STATEMENTS = 29

29. PROGRAM SIZE = (

0. SUBPROGRAM NAME = FLAGS

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

152K BYTES OF CORE NOT USED

DATE 77-295/15-11-40

REQUESTED OPTIONS OPTICES NOMAP

	a no
	MCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
	TERM
	NOANSE
	ALC
ONE)	NOXBEE
TODBLING	GUSTMT
(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOOBL(NONE)	DFORMAT
S) SIZE(	NOMAP N
COUNT ( SE	OBJECT
2) LINE	NODECK
TIMIZE	NOLIST
IA INI OP	CBCDIC
NAMECE	SOUPCE
IN EFFECT	
2	
FIONS	

000	THE THE PARTY						INPUT	2
00							INPUT	M
SN 0003	****** THIS SUBROUTINE READS AND WRITES INPUT	INE READS AND	WRITES INP	IT DATA ***	DATA **********	****	# INDOL	4
03							INPUT	S.
	COMMON / INTER /	(06)IX /	, ETA(30)	• ZT(20)	. XIN(90)	•	. INTER	N
		XIE (90)	(06)JIX 4	. XIR(90)	. ETAL (30)	101	. INTER	10
	N	ETAC(30)	, ETAR(30)	· COEU	. COEL		. INTER	4
	E.	ZCMI	. AM	· ZRVL	. ZCVL		. INTER	S
	•	POUM (30)	. EDUM(30)	. XMIN	. XMAX		. INTER	0
	ĸ	YWAX	. ZMAX	NIMA .	. ZMIN		. INTER	-
	•	ZW	ZRVU				INTER	a
15N 0004	COMMON / FXTFR	/ X1FX(30)	FTAX(20)	. Trying	TOE JANIA	101	FXTED	. "
		X11X(30)	XICX (30)	COEXCENT.	ETAL X (30)	301	FYTER	, ,
	. ~	ETACX(20)	FTARX(20)	XMINX	XMAXX		FXTER	4
		WAXX	ZWAXX	YMINX	YNINK		EXTED	
	•	* 5 5	X MOX	× 20.02	200		64460	, 4
		27477	77.07	V7477 .	* ***		THE PERSON	0 1
			XCMOX .				EXTER	
15N 0005	COMMUN / INDEX	/ JMAX	- KMAX	. LMAX	. KTM1		. INDEX	N
		KTIP	. KTIPI	. JWLE	. JLE(30)	-	. INDEX	10
	2	ST TE	. JTE(30)	. LWING	. LWINGU	_	Y HONT	4
	m	JMAX1	. KMAX1	- I MAX 1	- KROOT		COMP VX	
	•	JP.1					THIDEX	
15N 0006	COMMON / INDEXX	/ JMAXX	. KMAXX	. LMAXX	. KTM1X		TNDEXX	
		KTIPX	KTIPIX .	. MFX(20)	FEX (20	.00	TWDEXX	
	2	LWINGUX	LWNGLX	. JMAXXI	. KMAXXI		INDE XX	4
	3	LMAXXI	. KROOTX	x JP1X			THIDE XX	
15N 0007	COMMON / FLAGS	/ 101SK	TSAVE	10101	THINT		FIAGE	
1000		200	MACDOT	80000	2000		2000	
		1		. Datrie	1000			
	v '	ביבי	ISPAN	IL INK	· ICKODE		X I dul .	-
		EXTMSH	WENESH	. IMAPR	. YAW		. INPTX	N
	• 1	IBUMP	. IVISC	. ITWIST	. IFOILT		. INPTX	m
	2	IRCDIN	. AXISYM	. AREA	. IBLOUT		INDIX	4
15N 0008	LOGICAL	IDISK	. ISAVE	. IPLOT	. MSHINT		. COMF IX	4
	CHARLEST STATE OF A PAINT	SOLV	. WRCPRT	. BBCPRT	· BODY		. COMP IX	2
	2	FCR	, ISPAN	. IF INB	. ICRUDR		. COMP IX	9
	m	EXTINSH	. REMESH	. IMAPP	. YAW		. COMF !X	1
	•	IBUND	· IVISC	. ITWIST	. IFOILT		. COMF IX	8
		THEOTH	. AXISYM	. AREA	. IBLOUT		COMP TX	0
1SN 0009	COMMON / PARM /	A1	. A2	. A3	. A4		. PARM	~
	The state of the s	AS	- GAMMA	. MACHND	· COE		. PAPP	m
	2	23	. EMEXP(2)	. CK1(30)	. CK2(30)	•	. PAPM	•
	3	CK3(30)	. CK4(30)	· CK51(30)			. COMF 1X10	640
		CK52(30.90		. CK1X(30)	. CK2X(30	100	COME TX !	
		2	WCOF.				COME TV	:
10	OF A!	MACANO					TONE BAS	
15N 00 11	COMMON / PF! AXP	/ MAYTT	MAXITA	MAYTTY	DINE.		9 4 130	
		YOU	DIECT	015574	00010		· PELA	
		INCAY	· KIESI		ODCH .		· KELAN	0

## BIGRL   BIG		m		7	· WIX	•	JRD .	KRD .	PFLAXP 5
CDMMCON   WING   WPORS   NLEF				LRD	. BIGRL	•	, a	KE .	PELAXP 6
6 CDMHON / WING / PPODT		2		LE	. ERROR	•	COUNT .	. dusn	PEMESH 3
CDMMCON / WING / YPODOT , XLEP    2		9		IPASS					PEME SH 4
1	0012	COMMON	MING	YPODT	. XLER		KTER .	WIP .	WING 2
CRODT   SSPAN				XLET	. XTET	•	SREF .	SWEEP .	TAPTX 7
## CROOT		2		NLEI	. YLE1(10)	•	XLE1(10) .	STRUE .	INPTX 8
CROOT SSPAN  SSPAN  WANN  T XLEW(30) CORD(30)  WYTH ST(11) NUX(11)  E XLEW(30) CORD(30)  XTE(30) REACT  NSO  NXO(12-10) XXI(122)  NXI(122)  NXO(12-10) XXI(122)  E XXO(12-10) XXI(122)  NXI(12) NXI(122)  NXI(12) NXI(12)  NXI(12) NXI(1				NTEI	. YTE1(10)	•	XTE1(10) .	SXPOS .	PAPTX 9
S		•		CROOT	. SSPAN	•	THICK(11)	ZWNGWL .	INPTX 10
## COMMON   BODV2   FYT8T   10   FYT8T   11    ## COMMON   BODV2   FYT8T   10    ## COMMON   BODV3   FYT8T		9		NPAN	. YP(11)	•	THE TP(11) .	NTWST .	ATRFOILS
## A COMMON   BODV2   FY(30)   FY(30)    ## A NXO(12)   RFACT    ## A NXO(12)   RFACT    ## A NXO(12)   RXI(12)    ## A NXO(12)   RXI(12)    ## A RXO(12)    ## A RXO(12)   RXI(12)    ## A RXO(12)    ## A RXO(12)		9		YTHST(11)	. INUX(11)		INLX(11)	X (180.11).	ATPFORES
## A KIEW(30) CORPO(30)  ## A NXO(12) CORPO(30)  ## CORPO(12) CORPO(30)  ## CORPO(12) CORPO(30)  ## CORPO(12) CORPO(30)  ## CORPO(12) CORPO(30)  ## CORPO(30) CORPO(30)  ## CO		1		ZF (180 - 11)			KMOM	XI F (30)	TAPTX 11
Yes		. 60		X.FW(30)		•	CORDWISO	CORDINCILL	WING TO
NSO		6		XTE(30)	. RFACT		CMEAN	XTFW(30)	WING 11
B		<		NSO	. NS1		KX0(12)	KX1(12)	ATPFOTER
COMMON / BODVI / XYO(12,10), XXI(12,10)  F		æ		NX0(12)	. NX1(12)		YX0(12-10)	VX1(12-10).	ATPENTED
E CDMMON / BODV1 / XNUTSE . XTAIL  1 CDMMON / BODV1 / XNUTSE . XTAIL  1 STAIL  1 STA		U		XX0(12,10)			DXRO(12)	DXR1(12) .	AIRFOLLO
E CAV		•		DXT0(12)			AL PHAW	MIPLE	ATREDITE
F CAV CAN CORNEL COMMON FRODY   XNUTSE		lu:		NTIPXI	. XLEWX(30)		XTEWX(30)	CORDX	CHURD
G KSWICH CDMMON / BODVI / XNORE . XTAIL  1				CAV	XOX .		XI FWP(30)	XTFWD(30)	VSCEX3
COMMON / BODV1 / XNGSE . XTAIL  1		9		KSWICH					VSCEX3 2
1  NHGODS  3  KERKYGOO, LANN  4  KERKYGOO, LANN  BERKIIS) GERKIIS)  5  CFLL(2) ABL(15)  7  CFLL(2) ABL(15)  7  ARRU(90) XRBL(90)  8  ARRU(90) XRBL(90)  ARRU(90) XRBL(90)  1  ARRU(90) XRBL(90)  1  ARRU(90) XRBL(90)  1  ARRU(90) XRBL(90)  1  ARRU(15) ABL(15)  ARRU(15) ABL(10)  ARRU(10) ABRCU  ARRU(10) ARRU  ARRU(10) ARRU(10)  ARRU(10) ARRU  ARRU(10) ARRU(10)  ARRU(	0013	COMMON		XNOSE	. XTAIL		NB IN (2)	XBIN(2.35).	RODY 2
2				NACES	. IRUD(2)		RONCOL	NOSF	BODY 4
### KBWX(90) . LMN ####################################		. ~		JTATI	AL PHAR		NAPTS(90)	B(00)	RODV
### BFK(15) GFK(15)  ###################################		3		KBMX(90)	N		MX	AFK(15)	ADDV A
5 CFL(15) ABL(15) 6 ACL(2) ACL(2) 7 WRBU 8 NRBL(90) XBBL(90) 8 RBL(2,35) XBBL(90) 1 RBL(2,35) XBCSEX CDMMON BODV2 FX(30,90) FY(30,90) 3 LBU(2,35) XBOSEX 1 NBPTSX(30) LBOD(30,90) 3 LBUX(20,30) FY(30,90) 4 FYX(20,30) CPS(20,90) CDMMON BODV3 KBMAX LLEUX 1 NBPTSX(30) CPS(20,90) 2 RBCUX(20,30) RBCL(30,90) 3 RBCUX(20,30) RBCL(30,90) 4 SALPH(90) SALPHX(30) CDMMON HODVBC FRUD 1 CRMMON JUMP AZU 2 SALPH(90) ZBDD(20) CDMMON JUMP AZU 3 KPINDX(30,90) COMMON NSEL TITLE(20) COMMON NSEL TITLE(20)				BFK(15)	· (FK(15)		AFL(15)	PFL(15)	BODY
6 ACL(2) . BCL(2) . BCL(2) . BCL(2) . BRBL(90) . BRBL(9		9		CFL(15)	. ABL(15)		BBL(15)	CBL(15)	ROOV 7
7  XRRU(90) - XRBL(90) - XRBL(90) - XRBL(90) - XRBL  A  COMMON / BODV2 / FX(30,90) - FY(30,90) - FY(30,90) - FY(30,90) - FY(30,90) - FY(30,90) - FY(30,90) - FY(20,30) - FRECL(30,90) - FRECL(30		9		ACL(2)	. BCL(2)	•	CCL(2)	BTYPE	BUDY B
### NRBU				XRRU(90)	. XRBL (90)		DZRBU(90)	DZRBL(90) .	CHEN!
P		80		NRBU	. NRBL	•	YRB .	ZRBU .	BODY 10
A RBIN(2,35), XNOSEX  COMMON / BODV2 / FX(30,90), FY(30,90),  NRBT(30,90), LBOD(30,90)  A RBIN(20,30), LBOD(30,90)  COMMON / BODV3 / KBMAX (LLBUX  LLPLX (LLBUX  RBCL(30,90)  A RBCL(30,90)  A RBCL(30,90)  COMMON / BODVBC / IBUD  SALPH(90), SALPH(30)  COMMON / BODVBC / IBUD  SALPH(90), ZBOD(20)  COMMON / BODVBC / IBUD  SALPH(90), SALPH(30)  COMMON / BODVBC / IBUD  SALPH(30,90)		6		ZRRL	. KBMXX(30)		JNOSEX	JTAILX .	800V 11
COMMON / BODV2 / FX(30,90) , FY(30,90) , MBDT 50,90)  1		•		RB IN(2,35)			XTATLX .	YOR	FIXCY4 1
KBGD(30,90)   KBGD(30,90)   KBGD(30,90)   KBMZX   KBMXX   KBMXX   KBMXX   KBMXX   KBMXX   KBX	0014	COMMON		FX (30 .90)			FZ(30,90)		COMF 1X23
2				KBCD (30.90	•	•	LBU(20.90).	LBD(20,90).	COMF TXP4
1		2		NBPTSX (30)		60			COMF 1X25
4 FYX(20,30), CPS(20,90) CDMMON / BODV3 / KBMAX , KBMAXX , LLBUX    2 KBS , RBCL(30,90)    3 RBCUX(20,30)    4 BBCUX(20,30)    4 BBCUX(20,30)    5 SALPH(90) , SALPHX(30)    CDMMON / BODVBC / IBUD		9		LBUX (20.30			LBDX (20 +30)		COMF 1X26
COMMON / BODV3 / KBMAX , KBMAXX , KBMAXX , LLEUX		4		FYX(20,30)		_			COMF 1X27
1	0015	COMMON	BODY3	KBMAX	. KBMAXX	•	TEBL .	LLBU .	BODY 18
2 KBS RBCL(30,90) 3 RBCUX(20,30) 4 DRBCU DRBCL 5 SALPH(90) SALPHX(30) COMMON / BODYBC / IBUD RELD 1 COMMON / JUMP / AZU AZU 2 PJUMP(30,90) 3 KPINDX(30,90) COMMON / LABEL / TITLE(20) COMMON / NSBL / XOURA(30,90)		-		LLALX	· LLBUX		RBCU (30,90)	•	COMF TX29
3 RBCUX(20.30)  4 DPBCU DPBCL SALPH(30) SALPHX(30) COMMON / SODVBC / IBUD TBUD  1 COMMON / JUMP / AZU AZL  2 PJUMP(30.90) COMMON / LABEL / TITLE(20) COMMON / NSBL / XOUTA(30.90) COMMON / NSBL / XOUTA(30.90)		2		KBS	. RBCL(30,90	10			COMF 1X30
5 SALPH(90) , DRBCL , CCMMCN , FODVBC / IBUD , TBLD , TBLD		3		RBCUX( 20 +3	101	•	RBCL.X(20,30)	•	COMP IX31
SALPH(90) , SALPHX(30)  COMMON / BODYBC / IBUD , IBLD , IBLD    COMMON / JUMP / AZU , AZL				DRBCU	. DRBCL	•	PRBCUX .	DRBCLX .	COMF 1X32
COMMON / HODYBC / IBUD , IBLD		5		SALPH( 90)	. SALPHX (30	_			COMF 1X33
1 COMMON / JUMP / AZU , AZL ,	00 16	COMMON			· TBLD	•	1BS 1DE	ETABU(10) .	COMP 1X34
COMMON / JUMP / AZU , AZL , 22L , CZL , CZ				ETABL(10)	• ZBOD(20)		WRBS .	XRBS(100)	COMP 1X35
2 CZU . CZL CZL CZL	7100		SUMP	AZU	. A7L		. nze	. BZL .	JUMP 2
2 PJUMP(30,90) 3 KPINDX(30,90) CDMMIN / LABEL / TITLE(20) COMMON / NSBL / XOTATA(30,90)		-		CZO	י כבר		COFF		COMP IXIA
COMMIN / LABEL / TITLE(20) COMMON / NSHL / XOLATA(30,90)		~		PJUMP (30.9	(0)		PCDEF (30,90)	•	COMF 1X15
COMMON / LABEL / TITLE(20) COMMON / NSBL / XCHTA(30,90)		3		KPINDX (30.	106	•	PJUMPX (20,30)	101	COMP TX16
COMMON / NSBL / XORTA(30,90)	91 00		LABEL	TITLE (20)					IBM 2
	6100		NSBL /	XDUTA( 30 .9	(0)		7001 (30 . 90)		COMP IX65
				ZOCT (30.90)		•	CPU( 30.90).	CPL (30,90).	
		•							
				ZLE ( 30 )					

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LEVEL	2.2	(SCPT 76)	INPUT 05/360 FORTRAN H EXTENDED	DATE 77.295/15.11.40
		U		INDTX 31
ISN	15N 0034	•	. C. FMXITN/1. /. FMXITX/1. /. FINCR /1.	200
		-	FINCRX/1. /. FIVSMX/-1. /. FIVCON/2. /. FIGUTP/0.	INPTX 33
		2	FISTEP/10. /. FITRNS/-4.	RMSFX 29
		3		PMSFX 30
ISN	1 0035	•	1B/8.	FIXCYS 2
		-	F100T1/0. /.	
ISN			FKI 70. 7.	PMSFX 33
ISN	1 0037		DATA FIT /20. /. FIDIT /1. /. FIDPRF/1. /. FIDNCH/O. /.	PMSFX 34
		•		RMSFX 35
ISN			FKSMTX/0. /.	PMSFX 36
ISN	00 39		DATA FISTRI/O. /. FEPRIT/O. /	RMSFX 37
ISN			DATA JMESHR/FALSE./ JMAPR/FALSE./	PMSFX 38
ISN			DATA ZTEMP /0.0/	FTXCV5 3
ISN	1 0042		DATA PI /3-141592654/	FIXCVATS
		U		THEOT
		***	see Initialize asassesesesesesesesesesesesesesesesese	**INPUT
ISN				
ISN			UTAIL = 1	
ISN			KR00T = 1	
ISN			DO 4 J = 1,90	INPUT 26
ISN		2	DO 4 K = 1,30	INDUT 27
ISN		•	PJUMP(K, 3)=0.0	INPUT 28
ISN			M 1 J = 1,90	INPUT 29
ISN		-	KBMX(J) ≈0	INPUT 30
ISN			MOSEX = 1	
ISN			JAILX = 1	INPUT 32
ISN		_	KR00TX = 1	INPUT 33
ISN			NO 6 J = 1930	INPUT 34
ISN			DO 6 K = 1,20	INPUT 35
ISN		9	DYMPX(K+J) = 0.0	INPUT 36
ISN	1 0057		PO 7 J = 1,30	INPUT 37
ISN		1	KHMXX(J) = 0	INPUT 38
		U		INPUT 39
		C*****	esses CONIROL sessessessessessessessessessessessesses	144 INPUT 40
		U		INPUT 41
ISN			IF (IPASS .GT. 1) GO TO 10	REME SH30
ISN			(6.450)	
ISN			(2.400)	37.3
ISA	1 0063		WRITE (6,451) TITLE	
		U		
ISN	1 0004		READ (5-LIST)	
				FAILS 6
		*****	****** CHECK CONTROL PARAMETERS FOR COMPATIBILITY	FAILS 7
		,		
200	2900		Tr (andi-1015k) GU 10 160	
131			IN LENDISKE MESHI GO TO 150	FAILS TO
			PROBLEM NO. 32	
		, .		
ISN	6900		REMESH = "FALSE.	
ISN	15N 0070		MRITE(6,998)	FATLS 15

ISN 0071 C 160 I ISN 0073 C F I ISN 0075 C I ISN 0077 C 161 I ISN 0083 C C F I ISN 0083 C C F I ISN 0085 C I I I I I I I I I I I I I I I I I I	IF (.NOT.BDDY) GN TN 163  IF (ISPAN) GO TO 161  PROFILE NO. 27	
2 000 0 000 0 000 0 000 0 000 0 000 0 000 0	£ 0 16 16 16 16 16 16 16 16 16 16 16 16 16	
2 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	* ( ISPAN ) GO TO 161 ***********************************	
5 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ROBLEM NO. 27	
00 55 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TORLEM NO. 27	
00 55 C C C C C C C C C C C C C C C C C	. mif.	
0075 0077 0081 0083 0084 0085 0085	EDAN = TBIE	
0076 0077 0081 0083 0084 0085		
00083 C C C C C C C C C C C C C C C C C C C	#RITE(6,997)	
00083 C C C C C C C C C C C C C C C C C C C		S
00083 00083 00084 00085 00085 00085	F ( -NOT - IRODIN) GO TO 162	
0083 0083 0084 0085 0		
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FF ( ONT-APEA) GO TO 162	FAILS 27
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
0 0 0 183	PROBLEM NO. 29	
162		FATLS 30
C 162	AXISAM = OTRUE.	FATLS 31
C 162	#RITE(6,996)	
162		v. 1
·	IF ( -NOT. VAW) GO TO 163	
	PROBLEM NO. 28	FAILS 36
,	w	
	PASS # 0	FAILS 39
ISN 0089 163	JF (MACHID.LT.1AND. MACHID.GT.0.) GO TO 164	0
v		FATLS 42
	PROBLEM NO. 21	FAILS 43
·		FATLS 44
18N 0091	SOLV = "FALSF.	FAILS 45
	WRITE(6,994)	FATLS 46
u		FAILS 47
ISN 0093 164	IF (GAMMA.E0.1.4) GO TO 165	FATLS AR
		FATLS 49
·	PROBLEM NO. 22	
U		
	WRITE(6,993)	
v		FAILS 53
165	IF (EMEXP(1).EQ.1.75 .AND. EMEXP(2).EQ25) GO TO 166	
	MONTH. NO. 19	
U		63117
Bean wei	76071	CANAL S SO
166	NE CHEACT LEFACT AND BEACT LEFT OF TO 167	
	DO THE FIN NO. 20	
	A PAGE TO THE PAGE	
	WRITE(6,091)	
v		FAILS 65
167	IF (PSUB.GT.0AND. RSUB.LT.2.) GO TO 168	FAILS 66
٠		FAILS 67
	PROBLEM NO. 14	FATLS 68

GO TO 169  4) GO TO 171  • AND RSUBX-LT-2  • AND RSUBI-LT-2  • AND 173  • AND 173  • AND 175  • GO TO 175  20•) GO TO 175	Orest territory also	FAILS 69	FATLS 70	FAILS 71				FAILS 77				FAILS 82			FAILS R7		FATLS 01			FAILS OF	FAILS OF	FAILS OF	FAILS 99	FAILSION	FAILSIOI	FAIL S102	FAIL SIUS	FAILSION	FAILSIDE	FAILSIRT	FAILSIOR	FAILSIO	FATLSTO	FAILSIII	FAILSIT	FAILSIIA	FAILSIIS	FAIL SITE	FAILSITE	FAILSIIO	EATI SIED
RSUB = 1.7 WRITE(6.990) IF (EPS.GE.0.) G PROBLEM NO. 17 EPS = 1.6 WRITE(6.989) IF (NOT.EXIMSH) IF (RSUBX.GI.0.) FROBLEM NO. 25 FRSUBX = 1.6 WRITE(6.987) IF (SUBI.GI.0.) FROBLEM NO. 16 FRSUBI = 1.6 WRITE(6.987) IF (SUBI.GI.0.) FROBLEM NO. 16 FRSUBI = 1.6 WRITE(6.985) IF (EPSI.GE.0.) FROBLEM NO. 37 EPSI = 1.6 WRITE(6.985) IF (EPSI.GE.0.) FROBLEM NO. 37 FRSUBI = 1.6 WRITE(6.985) IF (FIVSMX.LE.20 FROBLEM NO. 13 FIVSMX = 20 WRITE(6.984) IF (FIVSMX = 20 WRITE(6.984)	DECEMBER 1 CALCINGE					TO 169				50 m 171	IND. RSUBX.LT.Z. GO TO 170				121 01 0					10 TO 173	IND - RSUBISET -2 -) GO TO 172						LINE IN THE STATE OF THE SECRETARY OF TH					The state of the s	2 5	3					TO 175		
	10.111		RSUB = 1.7	WR1TE(6,990)	A STATE OF STREET	IF (EPS.GE.O.) GO	PROBLEM NO. 17	EPS = 1.	WRITE(6.989)	JE ( SNOT SEXTMSH)			PSUBX = 1.6	WRITE(6.988)			FDSFX = 1.	WRITE(6.987)	The state of the s	( -NOT - RE MESH)	(RSUBI .GT .0.	DRUBER NO. 16		RSUB1 = 1.6	WRITE(6,986)		IF (EPSIONEOUS) 60			EPS1 = 1.	WRITE(6,985)		1 1		PROBLEM NO. 13		FIVSMX = 20.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1F (RE.GE.0.1) GO		
			1 0104	9010				1 0108	0100	0110			4 0114	1 0115	41.0		8110	0110	12 13	4 0120	1 0122			4 0124	1 0125					4 0128	4 0129	0150	0130				0134	0010	1 0136		
ISN 0104 ISN 0104 ISN 0108 ISN 0108 ISN 0108 ISN 0108 ISN 0108 ISN 0108 ISN 0108 ISN 0118 ISN 01			5	2		ISN		ISN	ISN	5	ñ		ISN	ISN	4	1	-	2		S	2			S	5		ñ			ISN	ISN		NSI	,		20	S	Ď	S	1	

	v	WRITE(6,983)	FAIL 5122
15N 0139	175	CONT INLE	FATLS124
ISN 0140		WRITE (6.465) IDISK, MSMINT, ISAVE, IPLOT, SM. V. WRCPRT, BRCPRT, BODY,	PAPUT 49
15N 0141		WRITE (6-479) YAW IF INR JCRUM SIMAPR SIBUMP SIVISCE ITVIST FOILT.	INPTX 49
15N 0142		WRITE (6.476) JMESHR .JMAPR	PHSF X 30
ISN 0143		WRITE (6.474) MACHIND ALPHAW, ALPHAR, GAMMA, RFACT (EMEXP(1), 1=1,2)	
		IF ( .NOT. REMESH) GO TO 80	INFIX 3
ISN 0146		WRITE (6,900) FMXITI FINCRI, RSUBI, RTESTI, EPSI	INFIX 4
		JF (JMESHR) GO TO 80	INFIX S
		(106-9)	INFIX 6
	80	WRITE (6,902) FMAXIT FINCR, RSUB, RTEST, EPS	INFIX
		IT IT IN THE TAXABLE THE TAXB CASE OF STATE STATES	C X1.41
SCIO NSI	:	WELL CONTENTED TO THE PROPERTY OF THE PROPERTY	•
	82	IF (-NOT-1V15C) GO TO 83	
		WRITE (6,905) FINSMX FINCON, EPSVIS, RE, FIDUTP , FISTEP, FITRNS, XTRNT,	
		XTRNB, CHISWP	INFIX 14
ISN 0160		WRITE (6,906) FKSMTX FK2SMT.FKENDS.FLWRIT.RELBL.FXTNDU.EXTNDL.	
		FKI,FKO	
	83	JF ( •NOT - 18 UMP) GO TO RA	
150 MISS	:	TANAL TOTAL	2 21 20
		WRITE (6,908) FIT-FIGIT-FIOPRF-FIPNCH-FKSMTH-CONV-FLTRN-SCALE.	
		PRES, TEMP	INF 1X 21
15N 0167		85 IF (IPASS-EQ.0) STOP	FATL S125
	U		
15N 0109		IF CONCIONE MESH 60 10 11	BUSEY A2
SN 0171		TXTMSH = EXTMSH	
		EXTMSH # oF ALSE	
N 0173		TVISC = IVISC	PMSFX 45
ISN 0174		IVISC = FALSE.	PHSEX 46
		TFIND = IFIND	RMSFX 47
		IFIND = JMESHR	PMSFX &B
		TMAPR = IMAPR	DHSEX 90
		IMAPR = SMAPR	PMSFX 50
		-	PMSFX 51
		IPLOT = .FALSE.	RMSFX 52
		11	PMSFX 53
		TBLOUT = 18LOUT	PMSFX 55
ISN 0184		IBLOUT = OFALSE.	RMSFX 56
	U		RMSFX 57
		MAXIT = FMXIT!	
15N 0186	TO STATE OF THE PARTY OF THE PA	MAXITN = 1	PMSFX 59

LEVEL		2.2	(SEPT 76	TUPUT 194	05/360 FORTRAN H EXTENDED	DATE 77.295/15.11.40
			·			RMSF X115
-	ISN	0234		50 10UT1 = FIGUT1		PMSFX116
-		0235		10072 = F100T2		PWSF X117
			v			PHSF X118
	ISN	0236		1F(1PASS-6T-1160 TO 202	60 TO 202	A STOKE
			0			
				STATE DEANE LIKE GEOMETRY		TOTAL TANK
	7	02.00		1000	D7171 E	TANDITA S
		0220				2011 C-11
		0000			071716	PARTITO CO
		0241		TO CAMA SE		WETX 76
		0243		FFAD (5-403)		1 × 1 × 1
		0244		WRITE (6.454)	VROOT .XLEP .XTER .YTIP .XLET .XTET .XMOM .SREF	
-		0245		PEAD(5,400) P	PTITLE	
-		9420			PTITLE	INDIX PO
-		0247		READ (5,403) XI	XMLE	INDTX 81
-		0248		WRITE(6,453) XI	XNLE	INDTX 82
-		6420		NLE I = XNLE		INDTX R3
-	ISN	0520		IF (MET-LE.10) GO TO 36	) GO TO 36	FAIL SIPA
			U			FAIL SI27
			0	PROPLEM NO. 4		FAILSIZA
		-	v			FAIL S129
-		0252		WEITE(6.982)		FAILSIBO
	NS	0253	,	STOP		FAILSIEI
		-	v	-		FAILSISS
1000		0254		DO 26 N=1 .NL		FAILSISS
		0255			YLET (N) . XLET (N)	
-		0256		_	(N. YLEI (N) . XLEI (N) . N=1 . NLEI )	
-		0257			PTITLE	INDTX 87
-		0258		_	PTILE	
-		0520			XNTE	INPTX RO
-		0560		-	XNTE	INDTX OO
-		0261		NTE 1 = XNTE		INPTX 91
-	ISN	0262		1F (NTEI-LE - 10) GO TO 37	) Gn Tn 37	FATLS134
			v			FAIL S135
			U	PROBLEM NO. 5		FAILSIBE
			U			FAILS137
	Z Z	0264		WRITE(6,981)		FAILSIZE
		6030	·	1016		FAILSISS
-	ISN	9566	,	37 00 27 N=1 .NTE!		FATI SIE!
-		0267			EI(N), XTEI(N)	INDTX 93
-		0268		WRITE(6.484) (	WRITE(6.484) (N. VTEI(N), XTEI(N), N=1. NTEI)	INPTX 04
-		0269		GO TO 30		INPTX 95
			U			INPTX 96
			C**	C****** YAWED WING INPUT	INPUT	INPTX 07
						INPTX 98
-				29 READ (5.403)	SWEED	INPTX 09
	ISN	0271		WRITE (6.478)	SWEEP	INPTXIOO
	IGN	0220	,	OF STREET ST. SE	15 ( SWEED .CF . 0. AND SWEED .F .00 1 CO TO 200	I WAY
			·		• • • • • • • • • • • • • • • • • • •	FAIL SIAC
			,			LAILDITO

: .

C PROBLEM NO. 31  C WRITE(6.977)  STOP  C 290 SWEEPR = .0174532945W  YRONT=0.0  XTER=0.0  XTER=1.0  XGET=YTIP4TAN(SWEEPR)		FAIL S188 FAIL S188 FAIL S188 FAIL S188
##   TE   6.9 \$ TOP \$ SWEE PR = ## ONT = 0.0 # TE   R = 1.0 # TE   R = 1.0 # TE   R = 1.0	. 31	FAIL S146 FAIL S146 FAIL S146 FAIL S146
STOP 290 SWEEPR = VRONT=0.0 XLER=0.0 XTER=1.0 XREF=1.0		FAIL S147 FAIL S147 FAIL S149
290 SWEEPR = YRONT=0.0 XLER=0.0 XTER=1.0 YRONTEN = 1.0 XLER=1.0 XL		FAIL 514P
290 SWEEPR = YRONT=0.0 XLER=0.0 XTER=1.0 YT P=1.0 XLET=YTP		FAIL SIAP
SWEEPR = VROOT=0.0 XLER=0.0 YT1P=1.0 XLER=1.0 XTER=1.0 XLET=YT1P		FAIL SIAG
WRONT=0.0 XLER=0.0 XTER=1.0 YTD=1.0	.0174532905WEEP	
XLER=0.0 XTER=1.0 YTID=1.0 XLET=YTIP*1		TAN
XTER=1.0 YTIP=1.0 XLET=YTIP#1		YAW 4
YTID=1.0		YAW S
XLET=YTIP#		VAW 6
	TAN(SWEEPO)	YAW 7
WTF T=XI FT+1.0	9-1	YAW
36.0		
CO C		•
WELL-DOO		
NE I=2		
VE1(1)=YR001	100	
WE1(2)=VTIP	•	
XLEI(1)=XLER	~	
XLE1(2)=XLET		YAW 15
NTE I=2		YAW 16
VTE 1 (1)=VR007	900	YAW 17
VIET 1121=VIID	2	
WELLET LATED		
THE TOOLSTON		
Cassess Alkeon		
30 GFAD (5.4001	DOD ATTIVE	INPTXIO
		ARIINNYZA
		14014100
	TE (TENTET) ON TO SO	FAINTAINT
		ATOFOLIS
200		ALL TOTAL
READ (5:403)	COLUMN TANGEN THE COLUMN THE COLU	TOTAL CITY
THE COPPE		COLYMAN
•		1 MP 1 X106
16	(NPAN-LE - 11) GO TO 31	FAILSISO
		FAILSISI
C PROBLEM NO. 1		FAILSISS
		FAILSISS
THE LEGISTER		TAIL SEST
STOP		FAILSISS
		FAILS156
		FAILSIST
-1		FAILSISA
11	(INI)-LE. 90. AND. INL. LE. 90) GO TO 32	FATLSISO
		FAILS160
C PROBLEM NO.		FAILSIAI
		FAIL S162
NMP = 1		FAILSIA
MR1TE(6,979) NYP	0) NYP	FAILSI64
STOP		FAILSIES
		FA7L 5166
32 INT = INU+INL-1	INL-1	FAIL S167

=

WEL 2.2	(SEPT 76)	INPUT 05/360 FORTRAN H EXTENDED	DATE 77-295/15-11-40
			FA11 5174
15N 0365	57	DO 60 NET NPAN	FAILSITS
		DEADER AND ATTHE	ATDEMAG
		WITE(6.451) ATTE	ATPENTSO
		TOTAL TELEVISION CONTRACTOR TOTAL TO	
		CO 11 CHARLES OF THE PRINCE IN TAXABLE	61550450
		TOTAL STATE OF THE	AINT DISC
		(IMICAIN) OLEOO) MICAIN =10	TIM I WILL
		ALLIE (6.440) VP(N), WEID(N), THICKIN), XNUSEC	GILYIANI
		NEW SEC = XNWS EC	AIPFORSS
15N 0375		IF (NEWSEC.NE.1) GO TO 67	AIRFOISA
15N 0377		READ (5.403) ZSYM,FNU,FNL,XKSMTH	INPTX116
15N 0378		IF (ZSYM.GT.0.) FNL=FNU	A IRFOIST
ISN 0380		MRITE (6.481) ZSYMOFNUOFNE OXKSMTH	INPTX117
15N 0381		CSMTHS(N) = XKSMTH	INPTX118
15N 0382		INU = FNU	INPTX119
			ATREOTSE
		INT = INU+INL-1	A IRFOIS9
		IF ( INT.LE. 180) GO TO 63	FATLSITE
	U		FAILSITT
	9086	PROBLEM NO. 2	FATL ST7R
			FA71 S170
TAKO NAT	,	RITE(6,979)	FAILSIA
			5411 6101
150 USBG			FAILSIAI
	•		FAILSIEZ
	63	INUX (N) = INU	FAILSIRB
ISN 0390		IMLX(N)=IM	AIRF 0161
18N 0391		PEAD(5,400) ATITLE	AIRF0162
15N 0392	The state of the state of	PITE(6,451) ATITLE	AIRF0163
15N 0393		00 61 1=IN. INT	AIPFOIGA
15N 0394		PEAD(5,403) XF(1,0N), ZF(1,0N)	AIRFOIGS
15N 0395		WITE(6,449) XF(1,0N),ZF(1,0N)	AIRF0166
15N 0396	61	CONT INUE	A IRF 0167
		IF (25YM.E0.0.) GO TO 64	ATREGIES
		DO 62 TEINE, INT	ATRENTAG
		2 N1	AIRFOITO
100		XF(J.N) = XF(1.N)	ATREMITI
15N 0402		ZF(JoN) = 2.4ZF(INL.N)-ZF(I.N)	AIRFOITZ
	62	CONT PINE	ATPECHTS
		09 10 60	ATPFOLZA
	*9	PEAD (5,400) ATITLE	AIRFOITS
15N 0406		WRITE(6,451) ATITLE	AIRFOITA
15N 0407		00 65 1=1,1ML	AIRFOLTT
		J = 1NL+1-1	AIPFOITS
15N 0409	The second second	READ(5,403) XF(J,N), 7F(J,N)	AIRFOLTO
15N 0410		MITE(6,449) XF(JoN) "ZF(JoN)	AIRFOIGO
ISN 0411	99	CONTINUE	AIPFOIBI
15N 0412		GD TO 60	AIRFUIRZ
15N 0413	67	INUX (N) = INUX (N-1)	AIRFOIBS
15N 0414		INEX (N)=1 NEX (N-1)	AIPFOIRA
15N 0415		INU= INUX(N)	AIPFOIRS
	INC	PNL= FNLX(N)	AIRFOIRS
ISN 0417		= INU+INL-1	AIPFOIRT
15N 0418		KSMTHS(N) = KSMTHS(N-1)	FIXCYS S

LEVEL	L 2.2	(SEPT	16)	INPUT DS/360 FORTRAN H EXTENSED	DATE 77.295/15-11-40
15				DO 4.8 I=1,1NT	AIRFOISE
ISN	N 0420			XF(1,4N) = XF(1,0N-1)	AIDFOIRS
15				7F(1 oN) = 2F(1 oN-1)	A1PF0190
IS			89	CONTINUE	A IPFOID!
ISN	N 0423		9	CONT INUE	A 18F0192
		v			AIRFOIGS
		٥		INVERRINE THISTS AND READ IN THIST TABLE	A10F0194
		U			AIPFOIDS
15	ISN 0424		13	_	FIXGX S
ISN				NF ( NOT . ITWIST) GO TO 14	FIXGX 6
IS	15N 0427			READ (5,400) TTITLE	INPTX121
ISN				WRITE (6.451) TTITLE	INDTX122
15					INDTX123
ISN					JAPT X124
15	15N 0431			NTWST = XNTWST	IMPTX125
15	ISN 0432			JF (NTWST-LE-11) GO TO 131	FAILSIBA
		v			FAILSIRS
		U		PROBLEM NO. 3	FAILSIRG
		v			FAILSIRT
15	15N 0434			WRITE(6,978)	FAILSIEB
15				STOP	FAILSIES
		u			FAILSIS
15			131	53.0	FATLSIOI
15				READ(5.403) YTMST(1),THETP(1)	A IRFOIDS
15	15N 0436				Alerono
15	ISN 0439		130	CONT INC.	A let uloi
		0	-	AUDIN CONTRACTOR OF THE CONTRA	MOVE 1
		. (		*** BILL GELMETER ****************************	2 300
					5 3000
	SEN OFFI			DEAN (E.AAA) STITIE	MONE A
				4.6021 8	ABIINANDE
					MOVE 7
15	ISN 0444			PF(18001N) GO TO 200	FPED 2
		v			MOVE 12
		3	****	ses RECTANGILAR RODY INPUT sessessessessessessessesses	**************************************
		U			WOVE 14
15		•		PEAN (5,403) 798U,788L, YPB,ZWNCWL	
2				WRITE (6,603) ZRBU, ZRBL, YRB, ZWNGWL	MOVE 16
-	15N 0448			IF ( DABLOLE . ZWNGWL. AND. ZRHU. GE . ZWNGWL) GO TO 103	FAIL 5192
		, (		COORT FW NO. 23	EATE STOA
		, .			FATLS195
15	15N 0450			WRITE(6,964)	FAIL SI96
15				STOP	FAIL SIO7
		0			FA1LSI98
15		•	103	-	S
-	15N 0453			INTITE (6,801) FARBU	MOVE 18
-	15N 0454			1F (FARBULE, 90.) GO TO 121	FAILSOO
					FAILSOI
				PROBLEM NO.	FAIL S203
15	15N 0456			WRITE(6.976)	FAIL S204
1	-				

DATE 77.295/15-11-40	FAIL S205	FA11. S206	FAIL S207		MOVE 21	MOVE 22	MOVE 23	FAILSONR	FA1L5209	FAIL S210	FAILS211	FAILS212	FAILSPIB	FA1L 5214	FAIL S215	MOVE 25	MOVE 26	FA11. 5216	FAIL S217	FAILS218	FAIL S219	FAIL S220	FAIL S221	FAIL \$222	FA1L 5223		MUNE 29	MOVE 30	MOVE 31	MOVE 32	FAIL \$224	FA1LSP25	FA1L \$226	FAIL 5227	FAIL S228	FAIL 5229	FA1L \$230	MOVE 34				3	FAILSORD	FAILSCOO	FAIL S234	FA1L 5235	FA1L 5236	FAIL S237	FAILSZE	MOVE 30	MOVE AD	FAIL S239	LAIL SON
INPUT OS/360 FORTRAN H EXTENDED			WIBU = FWIBU	READ (5,403) (XRBU(1),1=1,NRBU)	MRITE(6,804) (XPBU(1),1=1,NRBU)	(5,403) F18UD	WRITE (6,808) FIBUD	FF (FIRUD-LE-10.) GO TO 126		PROBLEM NO. 8		MRITE(6,975)			= F18V0	PEAD (5,403) (ETABU(1),1=1,18UD)	MRITE(6,805) (ETABU(1),1=1,18UD)	IF (ETABU(18UD) GE . YPB) GO TO 102		PROFILEM NO. 36		WITE(6,965)			DO 100 K=1.19UD	READ (5,403) (RBCI)(20+K, J) .J=1.NRBI)	MRITE(6,807) (RBCU(20+K.J),J=1,NPBU)	<b>3</b>	MEAD (5,403) FINRBL	WRITE (6,802) FNRBL	IF (FWRBL -LE-90.) GO TO 122		PROBLEM NO. 7	WRITE(6.976)			MRBL = FWRBL	PEAD (5,403) (XPBL(1),1=1,NPRL)			MRITE (6,809) FIBLD	JF (FIRLD.LE.10.) GO TO 127		PROBLEM NO. R		IRITE(6,975)				READ (5,403) (ETABL(1),1=1,18LD)	WRITE(6,805) (FTABL(1),1=1,18LD)	F (ETABL(1810), GF. YEB) GO TO 107	
	STOP		MERB C	READ	WEITE.	READ	WRITE	15 (6)		PROBLE		WRITE	STOP		TBUD	DEAD (	WRITE	1F (E		PRORE		WRITE	STOP		-1970	READ	WRITE	CONT INCE	MEAD	WRITE	IF CA		PROBLE	WRITE	STOP		NEBL :	BEAD (	WRITE	READ	WRITE	1F (F)		PROBLE		WRITE	STOP		1860	READ (	WRITE	1F (E	
1 761		0	121							v	U			U	126				v	·				u	102			100				U	u			U	122						u	·	U			v	127			u	
(SEPT 76)		•							•	•	•			•					•	•	•											•	•			•							-	•	•			•					
2.2	1540		458	65 10	0460	0461	2910	6990				9465	9990		1940	9940	6940	0410				0472	813		0474	8418	8 76	110	0478	813	0480			2840	0483		0484	9485	98 80	1840	9810	68 40				1640	26 40		0493	848	2640	9690	
LEVEL	ISN		ISN					ISN					ISN		ISN		ISN					ISN			ISN						ISN				ISN											ISN			ISN		ISN	ISN	
3																																																					

			FAIL S241
	C PROHLEM NO. 36	36	
			FAIL S242
15N 0498	WRITE(6,965)		FA7L 5243
	STOP		FAILS244
	U		FAILS245
	101	IRLD	FA11.5246
18N 0501	READ (5,403	PEAD (5,403) (PRCL(20+K, J), JEJ , NPBL)	
	WRITE(6.407	#RITE(6,807) (RBCL(20+K,J),J=1,NPBL)	MOVE 43
	120 CONTINUE		MOVE 44
	-	3) FNRBS	
	WRITE (6.803) FNRBS	3) FNRBS	MOVE 46
15N 0506	JF (FNRBS.L	FF (FWR85.LE.90.) GO TO 123	FA1L 5247
			FAIL S248
	C PROBLEM NO. 7		FAIL S249
			FA1L 5250
15N 0508	WRITE (6.976)		FAILSSI
15N 0509	STOP		FAILSZSZ
			FAIL S253
15N 0510	123 NRBS = FNRBS		FA11.5254
	READ (5.403)		MOVE AR
	WRITE(6,804)	1) (XRBS(1), F=1, NRBS)	
15N 0513	READ (5,403) F185	(3) F18S	MINE SO
	WRITE (6.810) FIBS	0) F1BS	MOVE 51
15N 0515		JF (F185.LE.20.) GO TO 128	FAIL SSS
			FAILS256
	C PROBLEM NO.	•	FAIL S257
			FAIL S258
15N 0517	MRITE(6,974)		FA1L 5259
	STOP		FAILSO
		En Action Canal Native I Adjust 1	FAILSZEI
	128 18510E = F185		ió.
ISN 0520	READ (5.403	READ (5.403) (ZBOD(1).1=1.1BSIDE)	
	WRITE(6.806)	(ZBUD(1), I=1, 1851DE)	MOVE 54
15N 0522		IF (ZBOD(1).LE.ZPBL.AND.ZBOD(1BS1DE).GE.ZRBU) GO TO 111	FAIL S263
			FA11.5264
	C PROBLEM NO.	. 36	FA11.5265
			FA11.5266
	WPITE(6,965)		FAIL 5267
1SN 0525	STOP		FAILS268
			FA11, \$269
1SN 0526	111 CONTINUE		FAIL S270
			FIXCES 7
	C SHIFT Z S	SHIFT Z S AND RESET WATERLINE	FIXCYS 8
			FIXCES 9
		18510E	FIXCYSIO
	112 ZB00 (1)=ZB0	ZB00 (1)=ZB0D (1)-ZWNGWL	FIXCYSEL
	ZRBU=ZRBU-ZWNGWL	ANGAL	FIXCYS12
15N 0530	ZRBL=ZRBL-7WNGWL	ANGAL	FIXCESIS
	ZTEMP=ZWNGWL		FIXCYSIA
ISN 0532	ZWNGWL=0.0		3
	00 110 L=1,1BS10E	IBSIDE	
15N 0534	READ (5,403		
	WRITE(6,807)	7) (FY(204L.J).J=1.NPBS)	MOVE 57

110 CONTINUE  GG 10 202  GG 10 202  CG 10 202  CG 10 702  CG 10 70				200
### THE COLOR OF CATALON FRED   FRED    ### THE COLOR OF THE    ### THE COLOR OF THE COLOR OF THE    #	0536	110 CONTINUE	MOVE 58	
### ### ##############################	35		FIXCASIO	
READ INPOUT FOR GUITGAR BODY   FREED			FRED 3	
C MEAD INVITE OR GOLICAR BODY  C MATCHES 20 PANCE  MENTECLE 200 PRITILE  MENTECLE 201 PRITILE  MENTECLE 201 PRITILE  MENTECLE 201 PANCE  MENTECLE 201 PANCE  MENTECLE 201 PANCE  MENTECLE 201 PANCE  C MENTECLE 201 PANCE  C MENTECLE 201 PANCE  MENTECLE 201 PANCE  C MENTECLE 201 PANCE  MENTECLE 201 PANCE  C MENTECLE 201 PANCE  M			FRED 4	
Colone   C			FOED 5	
200 PEAD (5-402) ZANGAL  PRED (5-402) PRIVE  PRED (5-403) PRIVE  P			FPED 6	
### ### ##############################	38	PEAD (5,403) 2	FRED 7	
WATTE (6.976)   FITTE   FREE	30		FPED R	
## 1 FE ( # 5.01) # 17 TLE   FRED   F	9		FRED 9	
READISACEST FRUCT.  INTERCENCES FRUCT.  INTERCENCES FRUCT.  C RECORLEM NG. 7  C STOP  STOP  STOP  C STOP  STOP  STOP  STOP  STOP  STOP  STOP  C STOP  STOP  C STOP  STOP  C STOP  STOP  STOP  STOP  C STOP			** ****	
######################################	::		reed 10	
WRITE(6.972) FAUCL   PROPRIEM NG. 7   FAILST   C	7.	-	LL UBGE	
F (FMUCLALE, 90.) GO TO 201   F (FMUCLALE, 90.) GO TO 201   C   PROPULEM MG. 7   FAIL 59	.3	FAUCE	FPED 12	
C PROBLEM NO. 7  WRITE(6.976)  STOP  OD 205 1=1.4MCL  FOD 205 1=1.4MCL  FOD 205 1=1.4MCL  FOD 205 1=1.4MCL  FOD 205 1=1.4MCL  FREAD 5.4033 XUCL(11).2UCL(11)  FREAD 5.4033 XUCL(11).2UCL(11)  FREAD 6.4033 YUCL(11).2UCL(11)  FREAD 7.4033 YUCL(11).2UCL(11)	:	.06.	FAILSTI	
C PROPREEM NO. 7  WRITE(6.976)  STOP  CON WACL = FUNCIO  DO 205 1=1.0 WILL  EAD(5.403) XUCL(1).2 UCL(1)  FORED  SOS CONTINUE  FEAD(5.403) XUCL(1).2 SAT(202)  FORED  SOS CONTINUE  FEAD(5.403) FUNCIO  C READ LOWER CENTER L. INF  FEAD(5.403) FUNCIO  FORED  FORED  FORED  FORED  FORED  FORED  FORED  C READ LOWER CENTER L. INF  FORED		U	FAIL S272	
C WRITE(6,976)  STOP  DO 265 1=1,NUCL  EAGL 55,000 BTILLE  READ 5,400 BTILLE  READ 6,400		PROBLEM NO.	FAILSTS	
### TEG ### TEG ### TEG ### TEG ### TEG ### TEG #### TEG ##### TEG #### TEG			FAIL SOTA	
### STOP  201 MUCL = FMUCL  DO 205 1=1*MUCL  FOR D(5,440) XUCL(1),7UCL(1)  FOR D(5,440) XUCL(1),2UCL(1)  FOR D(5,440) XUCL(1),2UCL(1)  FOR D(5,440) XUCL(1),2UCL(1)  FOR D(5,440) BTTLE  F	99		FATI COTE	
C STATESS  C SOLVECT = FNUCL  THE AD (5.403) XUCL(11).2UCL(11)  THE AREA) XUCL(11).2UCL(11)  205 CONTINUE  THE AREA) XUCL(11).2UCL(11)  THE AREA) XUCL(11).2UCL(11)  THE AREA) XUCL(11).2UCL(11)  C READ LOWER CENTER LINE  THE AREA) THE CONTINUE  THE AD (5.403) FTILE  THE (FNUCL.LE.90.) GO TO 206  THE (FNUCL.LE.90.) GO TO 201  THE FNUCL.LE.90.			2000 1100	
201 MJCL = FNUCL  DD 205 1=1*NUCL  TEAD (5.403) XUCL(1)*ZUCL(1)  PRED  205 CONTINE  TEAD LOWER CENTER LINE  TEAD LOWER CENTER			FAILSCIE	
201 NUCL   PANICL  READ(5.403) XUCL(1), ZUCL(1)  WRITE(6.449) XUCL(1), ZUCL(1)  15 (AREA) ZUCL(1), ZUCL(1)  16 (AXISYM) GO TO 225  C READ LOWER CENTER LINE  C READ LOWER CENTER LINE  READ(5.400) BTITLE  WRITE(6.501) BTITLE  WRITE(6.501) BTITLE  WRITE(6.402) FANCL  IF (FALC., LE.90.) GO TO 206  FRED(5.403) XLCL(1), ZLCL(1)  FRED  C READ WAX HAIF-BREDTH LINE IN X-Z PLANE  FRED  C READ WAX HAIF-BREDTH LINE IN X-Z PLANE  FRED  FRED  C READ WAX HAIF-BREDTH LINE IN X-Z PLANE  FRED			FAILSETT	
POD 205 1=1=NUCL   PRED   PR	2	_	FAILSTE	
THE ADDISON CLUITY   THE ADD	64	DO 205 1=1.0NUCL	FRED 14	
### #### #############################	20		FRED 15	
Frakea   20cL(1)=SQRT(20CL(1)/P1)   FREE	51		y. Uses	
205 CONTINUE  C READ LOWER CENTER LINE  C READ LOWER CENTER LINE  C READ LOWER CENTER LINE  READ(5.4001 BTTLLE  WRITE(6.501) BTTLLE  WRITE(6.502) FMLCL  UNTITE(6.976)  C RROBLEW MD. 7  C RROBLEW MD. 7  C WROTE(6.976)  STOP  C READ WAX HALF-RREDTH LINE IN X-Z PLANE  READ(5.4003) FWHCL  C READ WAX HALF-RREDTH LINE IN X-Z PLANE  READ(5.4003) FWHCL  C READ WAX HALF-RREDTH LINE IN X-Z PLANE  READ(5.4003) FWHRZ  FRED  STOP  C READ WAX HALF-RREDTH LINE IN X-Z PLANE  READ(5.4003) FWHRZ  FRED  WRITE(6.822) FWHRZ  FRED		THE PERSON OF TH	21 4344	
The continuous continuo cont	7		THEO IV	
FF ( AXT SYM ) GO TO 225   FRED	*		FPED 18	
C READ LOWER CENTER LINE  C READ LOWER CENTER LINE  READ(5,400) BTITLE  READ(5,400) BTITLE  READ(5,400) BTITLE  READ(5,400) BTITLE  READ(5,400) BTITLE  C PROBLEM MD. 7  C PROBL	8	FEAKISMI GO TO 225		
C READ LOWER CENTER LINE C READ(5.400) BTTTLE WRITE(6.822) FNLCL WRITE(6.822) FNLCL WRITE(6.822) FNLCL WRITE(6.822) FNLCL WRITE(6.976) IF (FNLCL.*LE.90.) GO TO 206 FRED C RROBLEM NO. 7 C RROBLEM NO. 7 C RROBLEM NO. 7 C ORDINATION CONTROL FRED C RROBLEM NO. 7 C RROBLEM N		U		
C READ(5.400) BTITLE READ(5.400) BTITLE READ(5.400) BTITLE READ(5.400) FULCL READ(5.400) FOR CL  C READ MAX HAIF-BREDTH LINE IN X-Z PLANE C READ MAX HAIF-BREDTH LINE IN X-X PLANE C READ MAX HAIF-BREDTH		READ LOWER	FRED 21	
#EAD (5.400) BTTLE ##EAD (5.400) BTTLE  ## FINCL  ## FIN		v	FPED 22	
WRITE(6.501) BTTLE  READ(5.403) FMLCL  WRITE(6.822) FMLCL  JF (FMLCL.LE.90.) GO TO 206  FRED  RAILS2  C PROBLEM MO. 7  C PROBLEM MO. 7  C PROBLEM MO. 7  C ON LCL = FMLCL  DO 210 1=1.MLCL  DO 210 1=1.MLCL  PRED  READ(5.403) XLCL(1), ZLCL(1)  FRED  C READ MAX HALF-BREDTH LINE IN X-Z PLANE  READ(5.403) FWHRZ  C READ(5.403) FWHRZ  FRED  FRED  WRITE(6.822) FWHRZ  FRED	57			
READ (5.403) FWLCL   WRITE(6.822) FWLCL   WRITE(6.822) FWLCL   WRITE(6.922) FWLCL   C	5			
### ### ### ### ### ### ### ### ### ##	2			
###   F (FMLCL.LE.90.) GG TO 206   FPED				
F (FM.CL.LE.90.) GO TO 206   FAILS2     FAILS2   FAILS2     FAILS3   FAILS2     FAILS3   FAILS2     FAILS3   FAILS2     FAILS3   FAILS2     FAILS3   FAIRS2     FAILS3   FAILS3     F	8	FMCL		
C PROBLEM NO. 7  C WRITE(6,976)  STOP  C NCL = FNLCL  206 NLCL = FNLCL  DO 210 1=1,NLCL  DO 210 1=1,NLCL  FAILS2  FAILS2  FAILS2  FAILS2  FAILS2  FAILS2  C READ MAX HALF-BREDTH LINE IN X-2 PLANE  WRITE(6,449) XLCL(I)  C READ MAX HALF-BREDTH LINE IN X-2 PLANE  WRITE(6,821) FWHR2  FRED  WRITE(6,822) FWHR2  FRED	19	IF (FNLCL.LE.90.) GO TO	FAIL S279	
C PROBLEM NG. 7  C PROBLEM NG. 7  STOF  C 206 M.C.L = FM.C.L  DO 210 1=1.M.C.L  FRED  READ (5.40.9) X.L.C.L(I)  C READ MAX HALF-BREDTH LINE IN X-Z PLANE  FRED  FR			FATLSZEO	
C WRITE(6,976) STOP C 206 NLCL = FNLCL DO 210 1=1.NLCL DO 210 WRITE(6,449) XLCL(1).7LCL(1) FPED C READ MAX HALF-BREDTH LINE IN X-Z PLANE FPED FPED FPED FPED FPED FPED FPED FPE		PROBLEM NO.	FAIL SZP1	
##1TE(6.976) STOP  C 206 MLCL = FMLCL  DO 210 1=1.MLCL  DO 220 1=1.MLCL  FA1LS2  FRED  C READ MAX HALF-BREDTH LINE IN X-Z PLANE  FRED  WRITE(6.821) BTITLE  WRITE(6.822) FWHR2  FRED  FRED			FAII SPR?	
STOP  206 M.CL = FM.CL  206 M.CL = FM.CL  DO 210 1=1.M.CL  DO 210 1=1.M.CL  EAD (5.403) XLCL(1) .Z.CL(1)  C  READ MAX HALF-BREDTH LINE IN X-Z PLANE  READ (5.403) FIHTLE  READ (5.403) FIHTLE  READ (6.822) FM.FRZ  FRED  FRED	63	WP17E(6.976)	FATI SPRT	
C 206 NLCL = FNLCL  DO 210 1=1.NLCL  DO 210 1=1.NLCL  READ (5.403) XLCL(I).ZLCL(I)  C READ MAX HALF-EPEDTH LINE IN X-Z PLANE  READ (5.400) BTITLE  WRITE(6.802) FWHRZ  FPED  F	*	OLD BY BY BY BY	-11	
206 NLCL = FNLCL  206 NLCL = FNLCL  DO 210 1=1.NLCL  PEAD (5.403) XLCL(1).7LCL(1)  C READ MAX HALF-BREDTH LINE IN X-Z PLANE  PEAD (5.400) BTITLE  WRITE(6.802) FWHRZ  PRED  PRED  PRED  PRED  FRED  PRED  FRED  PRED  FRED			-11.000	
206 NECL = FNECL  DO 210 1=1.NLCL  DO 210 1=1.NLCL  ERAD(5.403) XLCL(1).ZLCL(1)  C READ MAX HALF-BREDTH LINE IN X-Z PLANE  GEAD MAX HALF-BREDTH LINE IN X-Z PLANE  GEAD(5.403) FITTLE  FRED  FRE			FAILSONS	
DO 210 1=1.NLCL  PEAD (5.403) XLCL(1), Z.CL(1)  C READ WAX HALF-BREDTH LINE IN X-Z PLANE  PRED	65		FAIL S286	
PEAD(5.403) XLCL(I). ZLCL(I)  210 WRITE(6.449) XLCL(I). ZLCL(I)  C READ MAX HALF-BREDTH LINE IN X-Z PLANE  GEAD(5.400) BTITLE  WRITE(6.821) FWHR2  FRED	99	DO 210 1=1.NLCL		
210 WRITE(6.449) XLCL(I) ZLCL(I) C C READ WAX HALF-BREDTH LINE IN X-Z PLANE GEAD(5.400) BIITLE WRITE(6.802) FWHB2 WRITE(6.802) FWHB2 IF (FWHB2.LE.90.) GO TO 211	19	MEAD (5.403) MCL(11) - M.CL(11)		
C READ MAX HALF-BREDTH LINE IN X-Z PLANE C READ STITLE WRITE(6.501) BTITLE READ(5.403) FWHBZ WRITE(6.822) FWHBZ IF (FWHBZ-LE.90.) GO TO 211	**	10000		
FPED C READ MAX HALF-BREDTH LINE IN X-Z PLANE C READ (5.400) BTITLE WRITE(6.501) BTITLE PRED PREAD(5.403) FWHBZ WRITE(6.822) FWHBZ IF (FWHBZ.LE.90.) GO TO 211	00	( Sec. 2)		
C   READ WAX HALF-BREDTH LINE IN X-Z PLANE   FRED		U		
C READ MAX HALF-BREDTH LINE IN X-Z PLANE READ (5.400) BTITLE READ (5.403) FINHS READ (5.822) FMHBZ IF (FMHBZ-LE.90.) GO TO 211				
WRITE(6,501) BTITLE       FRED         PREAD(5,403) FWHBZ       FPED         WRITE(6,822) FWHBZ       FPED         IF (FWHBZ-LE,90.) GO TO 211       FALLS2		READ MAX HA		
WRITE(6,501) BTITLE PEAD(5,403) FWHBZ WRITE(6,822) FWHBZ IF (FWHBZ,LE,90.) GO TO 211 FALLS2	69			
PEAD(5.403) FWHB7 WRITE(6.822) FWHB2 IF (FWHB2.LE.90.) GO TO 211 FALLS2	20			
WRITE(6,822) FWHBZ  JF (FMHBZ-LE.90.) GO TO 211  FALLS2	7			
JF (FINEBLE.90.) GO TO 211	12			
117 OL 107 (-00-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-		00		
	13	IF (PMHSZ-LE-90.)	FAIL SE87	

SN 0675   SN 0677   SN 0670   SN 0677   SN 0670   SN 0677   SN 0670   SN 0670   SN 0677   SN 0670   SN 0	LEVEL 2.2	(SEPT		ווייטו	
STATE   Care		U		PROBLEM NO. 7	FAILS289
STATE (16,476)   STATE (16,476)   STATE (16,476)		U			FAILSPOR
STITE   STIT		175			FA1LS201
10   10   10   10   10   10   10   10					FA1L \$292
SECOND   STATE   STA		U	:		FATL S203
READ MAX HALE BREDTH LINE IN X-Y PLANE   FRED			117	7944 = Luke7	TAIL SUB
SECOND   STATE   SECOND   STATE   SECOND   SEC		9		12 1=10mme 1:10mme 1:10 DO	
Continue			316		OF GENT
READ HAX HALF BREDTH LINE IN X-Y PLANE   FRED			2		FPEN 42
READ 15.4001 8111E   READ 15				DEAD MAY HAVE RDENTH LINE IN X-Y DI ANE	EBEN A3
MEANING   METTINE   PREDICT		U			FPED A.
WRITE(6,50)   BITLE				READ (5.400) BTITLE	FRED 45
PEAD 15 - A 0 3   FAMEY   FAED 16		185		WRITE(6,501) BTITLE	FRED &6
Weight   W		183		PEAD (5,403) FMHRY	FRED &7
For   Fine Paralle   Go TO 216   Fall S7		184		WRITE(6.822) FMHBY	FPEN 48
C HROTILEM NO. 7 FAILS?  WRITE(6.976)  STOP  OG 220 1=1, HHRY  OG 220 114 2 1=1, HHRY  OG 220 124 1=1, HHRY  OG 230 124 11, HRY  OG 23		185		(FMHBY.LE.90.) GO TO	FA1L 5295
C HAGBLEM NO. 7  C SAG 15 MHB C 1 PANHAR (1 PAN		U			FAIL S296
WRITE(6,97k)   WRITE(6,97k)   WRITE(6,97k)   WRITE(6,97k)   WRITE(6,97k)   WRITE(6,97k)   WRITE(6,97k)   WRITE(6,97k)   WRITE(6,949)   XYMHB(1), VMHB(1)   YMHB(1)		<b>U</b> (			FAIL S297
226 FEATURES  0589 216 MMRY = FMHRY  0590 020 1=1,MHRY  0591 REATE(5.449) XYMHB(1),VMHB(1)  0592 220 WRITE(6.449) XYMHB(1),VMHB(1)  0593 REATE(5.403) XYMHB(1),VMHB(1)  0594 MRZ = MUCL  0595 MRZ = L=MUCL  0595 MRZ = L=MUCL  0596 MRZ = MUCL  0596 XZMHRI   13 XUCL (1)  0607 XZMHRI   13 XUCL (1)  0608 ZMLC   11 XZUCL (1)  0609 XZMHRI   13 XUCL (1)  0609 XZMHRI   13 XUCL (1)  0600 ZMLC   11 XZUCL (1)  0600 ZMLC   11 XZUCL (1)  0600 ZMLC   11 XZUCL (1)  0600 ZMLC   11 ZMLC   1 ZMLC    0600 MRZ = MMC   11 ZMLC    0600 MRZ = MMC				1767 773210	FAILSZOG
226 116 WRBY = FMHBY 0590					FAILSCO
Second Color			410		FAIL 3300
PEAD (5,449) XYMHB(I), VMHB(I)   FRED (5,449) XYMHB(I), VMHB(I)   FRED (5,449) XYMHB(I), VMHB(I)   FRED (5,549) XYMHB(I), VMHB(I)   FRED (5,549) XYMHB(I), VMHB(I)   FRED (5,59)   FR			017	20 220 1-1 mgs	CAILSON CO
220 WRITE(19-404) XYMHB(11) WHHB(11) FPED  C 225   FC + NOT - AXI SYM) GO TO 2  M.CL = NUCL  M.C		10		DEAD (E. 40.3) WWWD(T) - WWB(T)	
C   C   C   C   C   C   C   C   C   C			220		
225   F(_*NOT_*AXI SYM) GO TO 2  MCL_=NUCL  0595  MFRT = NUCL  0596  MFRT = NUCL  0597  MFRT = NUCL  0599  XLCL (I) = XUCL (I)  0600  XZMH9 (I) = XUCL (I)  0600  ZLCL (I) = -ZUCL (I)  CASHER (I) = -ZUCL (I)  CASHIR (I) = -ZUCL (I)  CASHER (I) = -ZUCL (I)  CASHIR (I)		•	200		
M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.=NUCL   M.C.L.E. M.C.L.   M.C.L.E. M.C.L.E. M.C.L.   M.C.L.E. M.C.L.E. M.C.L.E. M.C.L.   M.C.L.E. M		,	225	JF(.MOT.AXISYM) GO TO 2	
WHEN Y=NUCL   Decided				CINE DE	
0597 WHB 2 = WUCL 0598		96			
0598 DD 230 1=1*NUCL 0599 XLCL(1)=XUCL(1) 0600 XZMHB(1)=XUCL(1) 0602 ZLCL(1)=ZUCL(1) 0603 ZMHB(1)=ZUCL(1) 0604 230 YMHB(1)=ZUCL(1) 0605 C SHIFT Z S AND PESFT WATERLINE C DD 114 1=1*NUCL 0605 II S ZUCL(1)=ZUCL(1)-ZWNGML 0606 II S ZUCL(1)=ZWNGML 0610 II S ZUCL(1)=ZWNGML 0611 ZTEMP=ZWNGML 0612 ZTEMP=ZWNGML 0613 C SWNGML=0.0 C***********************************		101		MARS Z = MINCT	
XZMHP(I)=XUCL(I)   XZMHP(I)   XZMHP(I)=XUCL(I)   XZMHP(I)   XZMHP(I)=XUCL(I)   XZMHP(I)		96		DO 230 1=1.0NUCL	
0600 XZWHR(I)=XUCL(I) 0602 ZLCL(I)=-ZUCL(I) 0603 ZHR(I)=-ZUCL(I) 0604 230 YWHR(I)=2UCL(I) 0605 Z CDNTYME  C SHIFT Z S AND RESET WATERLINE  C SHIFT Z S AND RESET WATE		8		XICL (1)=XUCL (1)	
0602 ZLCL(1)=-ZvCL(1) 0602 ZLCL(1)=-ZvCL(1) 0603 ZHFB(1)=0.0 0604 230 YWHR(1)=ZvCL(1) 0605 Z CDNTYNJE C SHIFT Z S AND PESET WATERLINE C SHIFT Z S AND PESET WA		00		XZMHB(1)=XUCL(1)	
2 CDMTMME 2 CONTINUE C SHIFT Z S AND PESET WATERLINE C DO 174 1=1,NUCL 0606 115 ZUCL(1)=ZUCL(1)-ZWNGML 0609 115 ZUCL(1)=ZWNGML 0610 116 ZWHB(1)=ZWNGML 0611 ZTEMP=ZWNGML 0612 ZTEMP=ZWNGML 0613 C ZWNGML=0.0 C SHIFT Z S AND PESET WATERLINE C SHIFT Z S AND P		101		XYMHB(1)=XUCL(1)	
230 YNHR (1)=0.0  0604 230 YNHR (1)=ZUCL(1)  0605 2 CONTINE  C SHIFT Z S AND PESET WATERLINE  C SHIFT Z S AND PESET WATERLINE  C DO 174 1=1.NUCL  0607 114 ZUCL(1)=ZUCL(1)-ZWNGML  0608 115 ZUCL(1)=ZUCL(1)-ZWNGML  0610 DO 116 1=1.MHHZ  0610 DO 116 1=1.MHHZ  0611 ZTEMP=ZWNGML  0612 ZTEMP=ZWNGML  0613 C ZWNGML=0.0  C SHIFT Z S AND PESET WATERLINE  C SHIFT Z S AND P		201		ZLCL(11)=-ZVCL(11)	
0604 230 VWHR(I)=ZUCL(I) 0605 2 CDNTINNE C SHIFT Z S AND RESET WATERLINE C DO 114 F=1*NUCL 0607 114 ZUCL(I)=ZUCL(I)-ZWNGML 0607 115 ZUCL(I)=ZUCL(I)-ZWNGML 0609 115 ZUCL(I)=ZUCL(I)-ZWNGML 0610 116 ZUHR(I)=ZWNGML 0611 116 ZWHR(I)=ZWNGML 0612 ZTEMP=ZWNGML 0613 C ZWNGML=0.0 C SHIFT Z S AND RESET WATERLINE C S AND RESET WATERLINE		103		ZMHB(1)=0.0	
C SHIFT Z S AND RESET WATERLINE C SHIFT Z S AND RESET WATERLINE C DO 114 1=1.NUCL 0606 DO 115 1=1.NUCL 0609 115 ZLCL(1)=ZUCL(1)-ZWNGWL 0609 115 ZLCL(1)=ZUNGWL 0610 116 ZHR (1)=ZWNGWL 0611 116 ZWHR (1)=ZWNGWL 0612 ZTEMP=ZWNGWL 0613 C ZWNGWL=0.0 C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC			230	WHR (1)=ZUCL(1)	
C SHIFT Z S AND RESET WATERLINE  C DO 114 1=1.NUCL  0606			n	CONTINE	FIXCYSI7
C SHIFT Z S AND PESET WATERLINE C DO 114 J=1.NUCL 0605 114 ZUCL(1)=ZUCL(1)-ZWNGML 0607 115 ZLCL(1)=ZUCL(1)-ZWNGML 0609 115 ZLCL(1)=ZUCL(1)-ZWNGML 0610 DO 116 J=1.MHHZ 0611 116 ZWHR(1)=ZWNGML 0612 ZTEMP=ZWNGML 0612 ZTEMP=ZWNGML 0613 C CATTOTO MESH ####################################		U			FIXCYSIA
C DO 114 J=1.NUCL 0605		U		SHIFT Z S AND RESET WATERLINE	FIXCYSIO
0606 DO 114 ZUCL(1)=ZUNCH 0609 115 ZLCL(1)=ZUNCH 0609 115 ZLCL(1)=ZUNGH 0610 116 ZWHB(1)=ZWNGH 0611 116 ZWHB(1)=ZWNGH 0612 ZTEMP=ZWNGHL 0612 ZWNGWL=0.0 Cattotit MESH PARAWETERS FOR INTERIOR MESH ************************************					FIXCYSSO
0607 114 ZUCL(1)=ZUCL(1)-ZWNGWL 0608 115 I=1+MLCL 0609 115 I=1-MHZ 0610		900			FIXCV521
0608		101	114		FIXCYS22
0609 115 ZLCL(I)=ZLCL(I)-ZWNGWL 0610 100 116 I=1,MHHZ 0611 116 ZMHB(I)=ZWNGWL 0611 ZTEMP=ZWNGWL 0612 ZWNGWL=0.0 C***********************************		809			FIXCESS
0610 DO 116 I=1,MHHZ 0611 116 ZWHR(I)=ZWHG(I)-ZWNGWL 0612 ZTEMP=ZWNGWL 0613 ZWNGWL=0.0 C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		600	115		FIXCY524
0611		110		77.5	F IXCV525
0612 ZWNGWL=0.0 0613 ZWNGWL=0.0 Cattttt MESH PARAWETERS FOR INTERIOR MESH externassessessessesses			116		FIXCYSP6
0613 ZWNGWL=0.0 C444444 MESH PARAWETERS FOR INTERIOR MESH ************************************		115		ZTEMP=ZANGWL	F1XCV527
##### MESH PARAWETERS FIR INTERIOR MESH ####################################				Zungml=0.0	FIXCYSSA
ALSO PARAMETERS THE INTENTOR RESIDENCE		υ <b>:</b>		The state of the s	
		, ,		FOR MEDITARRELEND FIRE INICALUR MEDI FOFFFFFFFFFFFFFFFFFFFF	

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DATE 77.295/15-11-40
                                                                               INPUT222
                                                                                                                                                                                                                                      FIXCYS76
                                       FIXCY559
                                                NPUT218
                                                       NPUT219
                                                               NPUTZZO
                                                                                               F1XC V560
                                                                                                                FIXCY562
                                                                                                                        FIXCY563
                                                                                                                                        FIXCY565
                                                                                                                                               FIXCY566
                                                                                                                                                        FIXCY567
                                                                                                                                                                        FIXCY569
                                                                                                                                                                                INPUTZZO
                                                                                                                                                                                                                                FIXCYSPS
                                                                                                                                                                                                                                                                                                                                               22828
                                                                                                                                                                                                                                                                                                                                                                                               32
                                                                                                                                                                                                                                                                                                                                                                                                       E 4 5
                                                                                                                                FIXC YS64
                                                                                                                                                               FIXC VS68
                                                                                                                                                                                       FIXCYSPO
                                                                                                                                                                                               FIXCYSPI
                                                                                                                                                                                                        FIXCYST2
                                                                                                                                                                                                                FIXCY573
                                                                                                                                                                                                                        FIXCV574
                                                                                                                                                                                                                                                                FIXCY579
                                                                                                                                                                                                                                                                        FIXCYSRO
                                                                                                                                                                                                                                                                                 INPUT232
                                                                                                                                                                                                                                                                                         NPUT233
                                                                                                                                                                                                                                                                                                THPU TP34
                                                                                                                                                                                                                                                                                                        INPUT235
                                                                                                                                                                                                                                                                                                               NPUT236
                                                                                                                                                                                                                                                                                                                       INPUT237
                       FIXC YSS7
                                FIXCYSSE
                                                                                                        FIXCY561
                                                                       INPUT22
                                                                                                                                                                                                                                                        FIXCYSPE
                                                                                                                                                                                                                                                                                                                                                YAN
                                                                                                                                                                                                                                                                                                                                                                        YAN
                                                                                                                                                                                                                                                                                                                                                                                YAW
                                                                                                                                                                                                                                                                                                                                                                                                               YAW
                                                                                                                                                                                                                                                                                                                                                                                                                        YAW
05/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                              (YX1(N. I).XX1(N.I). I=1. IM)
                                                                                                                                                                                                                                                                                        (YX1(N.1).XX1(N.1).1=1.1M)
                                                       READ (5.403) (YX0(N.1).XX0(N.1).[=1.1M)
WRITE (6.489) (YX0(N.1).XX0(N.1).[=1.1M)
READ (5.403) DXR0(N).DXT0(N)
                                                                                                                                                                                                                                                                                                       DXR1(N) DXT1(N)
DXR1(N) DXT1(N)
                                                                              MRITE (6.490) DXRO(N).DXTO(N)
                                                                                                               IF (FNS1-LE-12-) GO TO 333
                                                                                                                                                                                                       IF (FNX1-LE-10-) GO TO 334
                                                                                                                                                                                               MRITE (6,492) FKX1,FNX1
                                                                                                                                                                                       READ (5,403) FKX1,FNX1
                                                                                                                                                                                                                                                                                                                                                                                                       DXRO (1)=TAN (SWEEPR)
                                                                                                       MRITE(6,491) FNS1
                                                                                               READ(5,403) FNS1
                                                                                                                                                                                                                                                                                                                                                                                                              DXT0 (1)=0 XR0(1)
INPUT
                                                                                                                                PROBLEM NO. 39
                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                       WRITE (6,962) N
                                KXO(N) = FKXO
                                                                                                                                                                                                                                                               KX1(N) = FKX1
                                                                                                                                                                                                                                                                                        READ (5.403)
                                                                                                                                                                                                                                                                                                                                                                               TX0(11.2)=YT1P
                                                                                                                                                                                                                                                                                                                                                                                               XX0 (1,2)=XLET
                                                                                                                                                                                DO 25 N=1 .NS1
                                                                                                                                                                                                                                                                                               MRITE (6.493)
                                                                                                                                                                                                                                                                                                       (5.403)
                                                                                                                                                                                                                                                                                                               MRITE (6.494)
                                                                                                                                                                                                                                                                                                                                                                        VX0(1.1)=0.0
                                                                                                                                                                                                                                                                                                                                                                                       XX0 (1.1)=0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                               VX1(1.1)=0.0
                                                                                                                                               RITE(6,963)
                                        NXO (N)=ENXO
                                                                                                                                                                                                                        PROBLEM NO.
                                                                                                                                                                                                                                                                        NXI(N)=FNXI
                                               (N)OXN = MI
                                                                                                                                                                                                                                                                               TH = NXI(N)
                                                                                                                                                                       NS1 = FNS1
                                                                                                                                                                                                                                                                                                                                                       KX0(1)=6
                                                                                                                                                                                                                                                                                                                                                               NX0 (1)=2
                                                                                                                                                                                                                                                                                                                                                                                                                               KX1(1)=6
                                                                                        CONT INCE
                                                                                                                                                                                                                                                                                                                       CONT INCE
                                                                                                                                                                                                                                                                                                                               GO TO 28
                                                                                                                                                                                                                                                                                                                                       CONT INCE
                                                                                                                                                                                                                                                                                                                                                                                                                                       NX1(1)=2
                                                                                                                                                                                                                                                                                                                                                NS0=1
                                                                                                                                                                                                                                                                                                       READ
                                                                                                                                                                                                                                               STOP
                                332
                                                                                        24
                                                                                                                                                                        333
                                                                                                                                                                                                                                                                334
                                                                                                                                                                                                                                                                                                                       52
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LEWEL 2.2 (SEPT 76)
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                                                               8990
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                                9990
                                                       7990
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                0663
                                        9990
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                                SN
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                                                       SN
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19

6040	VX1(1,2)=VTIP	YAN	30
0110	XXI(101)=100	AVA	•
0711	XXI(1,2)=XTET	YAN	:
0712	DXR1(1)=DXR0(1)	YAW	-
6713	DXT1(1)=5x80(1)	YAN	13
	7	AVA	:
		INPUTZSO	250
	Constant MESH PARAMETERS FOR EXTERIOR MESH statestates at the contract of	***** INDO 1251	152
		INPUT252	252
0714	28 IF (aNDTaEXTMSH) GO TO 48	PMSFXIZZ	221
9110	1F(.NOT.1 CRUDR) GD TO 48	INPTXISS	155
****	The state of the s	OCIA TOPI	961
01.10	MEAN 1940 O. 1. TERM	SIX TONE	988
0220	DEADLE AND STORY CHANAVER HAVE CHILD VEHICLES		
0721	MOTOR AND AN EMBANY CHILD AND AN EMTTON OF THE PROPERTY OF THE	FINCHES	200
0722	COORD AND AND AND AND AND AND AND AND AND AN	FIXCYSA	200
0723	RMAXXIIFKMAXX	FIXCYSBA	204
0724	LMAXX=FLMAXX	FIXCYSBS	505
0725	KTIPX=FKTIPX	FIXCYSB6	586
0726	LWNGUX=FLWGUX	FIXCYSR7	587
0727	READ(5.403) (XINX(J) -J=1.JMAXX)	INPTX161	141
0728	WP1TE(6.495)(X1NX(J)-J=1.0EAXX)	INPTX162	1162
07 29	2F(YAW) GD TO 56	YAW	45
0731	READ(5,403) (FTAX(K) oK=1 oKMAXX)	INPT X163	163
0732	WRITE(6.496)(ETAX(K)=K=1.0KMAXX)	INPTX164	1164
0733	56 CONTINUE	YAN	**
0734	READ (5,403) (ZTX(L), L=1, LMAXX)	FIXCYSOB	288
0735	WRITE(6.497)(ZTX(L),L=1.LMAXX)	FIXCY589	289
0736	77000	FIXCY590	200
0131	26 21 X(L)=21 X(L)-2   EMP	LIXC ADDI	160
02.20	104 7/34 Cm 102 47 AV F 134	TAIN TAIN	190
200		SOLVION	201
04.00		INPTXIBO	001
0742	-	INPTXI70	041
***	JF (JAAXX-LE-30-AND-KMAXX-LE-20-AND-LMAXX-LE-20) GO TO 48	FAILSOR	308
	11 Cm #3 90 QL	FAIL S309	500
	100	EAN STO	
0746	WRITE(6,972)	FAILSTIP	312
0747	STO	FAILS313	313
		INPTXITE	172
0748	48 CONTINUE	TAPUT277	277
	•	INDUT278	278
	Content F D R M A T S antentations and antentation of a state and		270
		INPUTZHO	280
0749	400 FORMAT (20A4)	184	13
0220	401 FORMAT (14L5)	INPUTZRZ	242
0751	402 FORMAT(8110)	INPUTZB3	283
0752	403 FORMAT (8F10.0)	INPUTZEA	284
0753	449 FURMAT(10XeRF10-5) AIRFOI	AIRFOIDS	102

		4.25HMOFFETT FIELD, CALIFORNIA,16X,65HAERODYNAMICS SECTION, GRUMMANYSCFX4 of AFBUKDACF CODD., BITHDAGE, NEW YORK//IOX,75HDDDCDAM DEVELOPED EDDUKCFX410	VVSCF X4 0
		6 THE AIR FORCE FLIGHT DYNAMICS LAR, WPAFB, DAYTON OHIO//10x,10HINPVSCFX411	VSCF X4 !!
		AT BATA	VSCF X412
		3	18M 14
N	9520	474 FURMAT ( /10X+) THELIGHT CONDITIONS//10X+5HMMACHMI-5X+5HML-HAM+5X+ INFIX 24	TAFTX 24
		2 /7X-5F9-4-2F10-4)	1MF 1 X 26
ISN	0757	453 FORMAT ( /10%,4HXNLE/10%,F3.0)	INPTX173
ISN		454 FOPMAT ( /10x.5HYROOT.6X.4HXLER,7X.4HXTER.7X.4HYTIP.7X.4HXLET.7X.	
		4.7X.4HSRFF/6X.7F	THPTXIPS
ISN	6540	-	INPUT292
ISN		FORMAT (	INPUT293
20	1970	40'T UKARA I VIOXABITANIPANADA SHINUA YASHINLA YASHINLA YASHINLO XATAA U	STATE OF THE PARTY
NS	0762	458 FIRMAT (/10x,46HX/C AT WHICH UPDER SURFACE ORDINATES ARE INDUT)	INPUTOOS
ISN		FORMAT ( 5X,8F10.6)	INPUT296
ISN	0764	460 FORMAT (/10x+46HX/C AT WHICH LOWER SURFACE OPDINATES ARE INPUT)	INPUT297
ISN	9920	ISAME IS	INPUT298
NS	9920	462 FORMAT (/10X, 6HY(N) =.F8.6.59H ISAME 1S TRUE - USE PREVINUSLY	DINPUT299
		IEFINED AIRFOIL MODINATES)	1NPU 1300
ISN		FURMAT (/10x,28HTHE FOLLOWING ZU/C	INPUTS01
ISN		FORMAT (/10x,28HTHE FOLLOWING ZL/C ARE INPUT)	INPUT302
ISN	040	AT ( /10x,113H1DTSK MSHINT ISAVE IPLOT SOLV	•
		LINE COLLAR DOLLAR EXTENDE REMEDE	ASCE A
3	0220	Z SX+13C-3 vs. rest may be constructed by the state of th	STRVS 46
20	2110	TAKE WILLIAM A CANADITION OF THE CANADITION OF THE CONTRACT OF	FIXCASS
SN	1771	468 FORMAT ( /10X - 74NLES = -13)	TWPUT308
ISN		FURMAT ( /10x - THINTES =	INPUTSES
ISN	0773	470 FORMAT ( /10X-54XNPAM/10X-F3.0)	INPTXIPE
ISN	0774	471 FORMAT(/9X.6HFJMAXX.4X.6HFKMAXX.4X.6HFLMAXX.4X.6X.6HFKTIPX.4X.	FIXCY594
		1 GHFLWGUX/5x.6(6x,F4.1))	FIXCY595
ISN		FURMAT (	INPTXIPO
ISN		FORMAT (	INPTXIBO
ISN			INFIX 27
SN	07.78	477 FORMAT( /10x.1HN.3x, THYLEI(N), 6x, THXLEI(N), 20(/10x,12,2x,F9.4,	INPTXIBL
3	02.20	INCOME TO THE PROPERTY OF THE	INDIXIB2
20		478 TUKENI ( 10X-5HSWEEF/ 10X-F0-3)	IND XIES
ISN	0780	479 FIRMAT ( /10X+3HYAM+6X+5HIFINR+4X+6HIGNUBR+3X+5HIMAPR+4X+5HIBUMP+	INDT XIBS
		2 AMARE A.S.X.AMIRI (IIII 73X = 1219)	TONT
Z	18N 0781	480 FORMAT ( /10x, 2HYP-8X, 5HTM IST . 5X, 5HTH ICK . 6HXNW SEC/7X, F7.5, F11.3.	INPTXIRT
		1 F10 23 F9 0 0)	INPTXIES
ISN	0782	481 FDRMAT ( /10X, 4HZSYM, 6X, 3HFNU, 7X, 3HFNL, 7X, 6HXKSMTH/11X, F2.0.	INPTXIBO
		1 2510.0,511.0)	TNP TX190
ISN	0783	483 FORMAT ( /10X+4HXNTE/10X+F3.0)	INDIXIOI
ISN	0784	484 FORMATI (10x.1HN.3X.7HTEI(N).6X.7HXTEI(N).20(/10X.12.2X.F9.4.	INPTX192
		[4X,F9.4]]	TX1
ISN		590 FURMAT(1H1,/10X,21HATRFOIL SECTION INPUT //10X,20A4)	18M 15
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SN SN ISN SN

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NPUT340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NPT X200
                                                                                                                                                                                                                                                                                  INPUT330
                                                                                                                                                                                                                                                                                                                         INPUT342
                                                                                                                                                                                                                                                                                                                                                                 FIXCYSOO
                                                                                                                                                                                                                                                                                                                                                                             INDUIT346
                                                                                                                                                                                                                                                                                                                                                                                           NPUT347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NPTX197
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NPTX206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NP T X208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NPTX210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INDT X212
                        INDUT320
                                                                                                                                              INPUT329
                                                                                                                                                            NPU 1330
                                                                                                                                                                                     NPUT332
                                                                                                                                                                                                               NPU 1334
                                                                                                                                                                                                                             INPUT335
                                                                                                                                                                                                                                          INPUT336
                                                                                                                                                                                                                                                       THPUT337
                                                                                                                                                                                                                                                                                               FIXCYSOR
                                                                                                                                                                                                                                                                                                            FIXCYSO7
                                                                                                                                                                                                                                                                                                                                      INPUTABA
                                                                                                                                                                                                                                                                                                                                                    FIXCYSOR
                                                                                                                                                                                                                                                                                                                                                                                                        NPUT348
                                                                                                                                                                                                                                                                                                                                                                                                                                  NPUT350
                                                                                                                                                                                                                                                                                                                                                                                                                                               NPT X195
                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOT X! 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIPTXIGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NPT X202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NPT X204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BUNNAPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14PT X207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NPT X211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFIX 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lox, bhfmxiti.3x, bhfincri,3x, shpsubi.4x, bhrtesti, 4x, 4 Hepsi/infix 29
                                     INPUT321
                                                  INPUT322
                                                               NPUT323
                                                                           NPU T324
                                                                                         NPU T32
                                                                                                       NPU T326
                                                                                                                    NPU T32
                                                                                                                                INPUT32
                                                                                                                                                                         NPU T33
                                                                                                                                                                                                  NOTX TON
                                                                                                                                                                                                                                                                     11PU 7336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IND T X201
                                    THIRBIN = .13. 5x, THUBUP = .13.5x, THUBON = .13 1
                                                                                                                                                                                                  ( /10x,4HZPBU,6X,4HZPBL,6X,3HYPB,7X,6H,WNGWL/6X,4F10.5)
                                                                                                                                SH XMMD.5X.5H YMPD.5X.5H ZMRD/12X.3(L1.10X))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /10x,34HINITIAL MESH RELAXATION PARAMETERS//
                                                 RRIN . 201 5x 2F10.61)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                         4HZMIN. 10X. 4HZMAX /8X, F9.5.5X.F 51
           XTAIL / 5X. 2F10.6)
                                                                                                                                             4HXM1N, 10X, 4HXMAX/8X, F9.5,5X, F9.5)
                                                                                                                                                           4HFM1N.10X.4HFMAX/8X,F9.5.5X.F9.53
                                                              / 5x. 2111 )
                                                                                                                                                                                                                                                                                                                                                                             XX1 .20X(/4X,2F10.61)
                                                                                                                                                                                                                                                                                                                        XX0 .20(/4X,2F10.6))
                                                                         4HJ = . F3.10X. THNSAME = .L2 )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FURMAT(/10x . FB . 1 . 5 X . 24 HC MORD PAIRS DEFINE LINE
                                                                                                                                                                                     EPS/5X .F9.4 .E12.
                                                                                                                                                                                                                                                                                                                                                                                           DXT1 / 6X. 2F9.61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FORMAT ( /10X.10HX STATIONS/10(/10X.8F10.5))
                                                                                                                                                                                                                                                                                                                                      DX TO /6X - 2F9.61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /10X,10HY STATIONS/ 2(/10X,8F10.5))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /10X+10HZ STATIONS/ 2(/10X+8F10+51)
                                                                                                                                                                                                                                                      FORMAT(/8x,4HXRBL,12X,5HDZRBL/(1X,2F12,5))
                                                                                                                                                                                                                            FORMATI/BX. 4HXRBU. 12X. 5HDZRBU/ (1X.2F12.51)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·F8.4/)
                                                                                                      4HKB(TD .10(/1X.10110 1)
                                                                                                                    4HLBOD .10(/1X.10110 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FORMAT (32HCRUDE MESH KMAXX EXCEEDED (Y)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /10X,6HSLOPES/10(/10X,8F10.5))
                                                                                                                                                                                                                                                                                                                                                                                                                                               FORMAT (32HCRUDE MESH JMAXX EXCEFDED (X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FORMAT (32HCRUDE MESH LMAXX EXCEEDED (2)
                                                                                                                                                                                                                                                                                                            FORMAT(/10x, 4HFKX0,5X,4HFNX0/4X,2F8,1)
                                                                                                                                                                                                                                                                                                                                                               FORMAT(/10x, 4HFKX1,5X,4HFNX1/4X,2F8,1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FORMAT(324FINE MESH JMAX EXCEEDED (X) FORMAT(324FINE MESH KMAX EXCEEDED (V)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FIRMAT (32HF INF MESH LMAX EXCEFDED (2)
                                                                                                                                                                                                                                                                                                                                                                                                                     FORMAT (/10x, 3HETA, 10(/1x,8F12,6) )
                                                                                                                                                                                                                                                                                                                                                                                                                                  FORMAT (/10X. 3HZT ,101/1X,8F12,6) )
                                                                                                                                                                                                                                                                                                                                                                                                       FORMAT (/10X. 3HXIN,101/1X,8F12.6) )
                                                               STAIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FORMATIVIOX . I BHWING WATERLINE IS
                                                                                        8HNBPTS = .13 )
                         SHNRMDS = .13 )
                                                                                                                                                                                                                                                                                  FORMAT ( /10X, GHEXTMSH/12X,L1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /10x,5HF1BUD/10x,F4.01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FORMAT ( /10X, SHFNRBU/10X, F4.0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ( /10X,5HFNRBL/10X,F4.0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FORMAT ( /10X, SHFNRHS/10X, F4.0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /10x,5HF IBLD/10x,F4.0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /10X,5HF1BS /10X,F4.01
                                                                                                                                                                                                                                                                                                                                                  FORMAT (/10x, 4HFNS1/11X, F4.1)
                                                                                                                                                                                                                                                                                               FURMAT (/10X , 4HFNS0/11X , F4 - 1)
                                                                                                                                                                                                                                                                     FIRMATI/9X, SHBTYPE/1X, 1101
                                                          16H JNOSE
           710X. 16H XNOSE
                                                                                                                                                                                                               FORMAT ( JOX . 4HARBU/ 1X . 110)
                                                                                                                                                                                                                                          FORMATI /9X . 4 HARBIL/ 1X . 110 )
                                                                                                                                                                                                                                                                                                                                      ( /10X. 14HDXR0
                                                  14HXBIN
                                                                                                                                                                                                                                                                                                                                                                                           ( /10x, 14HDXR1
                                                                                                                                                                                     /10X.14HRSUR
                                                                                                                                                                                                                                                                                                                         FORMAT ( /10X, 12HYX0
                                                                                                                                                                                                                                                                                                                                                                             FORMAT ( /10X. 12HYX1
(/10×-2044)
                         110x.
                                     010x.
                                                                          110x.
                                                                                                                                 /10x.
                                                                                                                                              110x.
                                                                                                                                                                       /10x.
                                                  JOX.
                                                               /10x.
                                                                                                                    110x.
                                                                                         110x.
                                                                                                                                                            /10x.
                                                                                                       110x.
                                                                                                                                                                         FURNAT
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15N 0839		6x.2F9.0,F9.3,E11.3,F7.2)	
	901 FORMAT ( /10x,34HINITIAL	( /10x,34HINITIAL MESH GENERATION PARAMETERS//	
	1 10X, 4HDXL 1,5X, 4H	10X, 4HDXL 1,5X, 4HDXT1,5X,5HDXMX 1,4X,4HFNF1,5X,4HFNB1,5X,	INFIX 32
	2 SHOUDSTI. 4X, 4HOLG	5+00 DST1 - 4X - 4+00 LG1 - 5X - 6+1 TOUT 1 - 3X - 6+1 TOUT 2/	INFIX 33
	3 6x,3F9.4.F7.0.2X	6X. 3F9. 4.F7.0.2X.F7.0.2X.2F9.2.F7.0.2X.F7.0)	PAFTX 34
15N 0840	902 FORMAT ( / JOX - 31HF INF ME	CONTACTOR MESH RELAXATION DARAMETERS	INFIX 35
		10x SHEMAX IT 3X SHFINCR 4X 4HRSUB 5X SHRTEST 5X 3HFPS/	
	2 6x.2F9.0.F9.3.F11.3.F7.2)	(-3.57.2)	
15N 0841	ON'S ETBUAT ( /10x 31HF 1NF WE	AND A THE INF WESH GENERATION DABLINETERS	THETY TA
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	2 AHXDST SX 3 HXLG.	AHXDST.SX.3HXLG.6X.6HFIQVIII.SX.6HFIQUIZ	
	3 6x,3F9,4,F7,0,2x	6x,3F9.4,F7.0,2x,F7.0, 2x,2F9.2,F7.0,2x,F7.0)	
15N 0842	904 FORMAT ( /10X,33HCDARSE	/10x,33HCDARSE MESH RELAXATION PARAMETERS//	INFIX 42
	1 10X , SHFMX I TN , 3X ,	10X + 64FMX I TN +3X + 64FMX I TX +3X + 64FINCRX +3X +54RSUBX +5X +54EPSEXINFIX	EXINFIX 43
	2 /6X.3F9.0.F9.3.F9.2)	.2)	INFIX 44
15N 0843	905 FORMAT ( /10X, 28HV ISCOUS	( /10x.28HV ISCOUS ITERATION PARAMETERS//	INFIX 45
		10x , 6HF IVSMX .3X , 6HF IVCON . 3X , 6HEPSV IS ,3X , 2HRE ,7X, 6HF I DUTP .	INFIX
	2 3X.6HFISTEP.3X.6	3X.6HF ISTEP. 3X.6HF ITRNS. 3X.5HXTRNT. 4X.5HXTRNB. 4X.6HCHISMP/INFIX 47	JINFIX 47
	3 5X.2F9.0.1X.F9.4	5X,2F9.0.1X,F9.4.F9.3.3F9.0.2F9.3.1X,F9.3)	INFIX 48
15N 0844	906 FURMAT ( /10X.6HFKSMTX.3	( /10X.6HFK SMTX.3X.6HFK 25MT, 3X.6HFK ENDS.3X.6HFLWRIT.3X.	
		SHPELBL, 4X,6HEXTNDU,3X,6HEXTNDL,3X,3HFKI,6X,3HFKO/	PAPET SO
	2 5X.4F9.0.F9.3.1X	5X + 4F 9 + 0 + F 9 + 3 + 1X + 2F 9 + 3 + F 7 + 0 + 2X + F 7 + 0 )	INFIX SI
ISN 0845	907 FORMAT ( /10X,22HMURMAN	( /10X , 22HMURMAN BUMP PARAMETERS//	INFIX 52
		10X. 1HF.8X.SHSHIFT.4X. GHFBSTRT.3X. GHFBPRNT/	
	2 6X.2F9.3.2F9.0)		INFIX SA
15N 0846	908 FORMAT ( /10X.30HNASH BO	( /10x .30HNASH BOUNDARY LAYER PARAMETERS/	INFIX 55
		10x . 3HF IT . 6X . SHF IOIT . 4 X . 6HF I CPRF . 3X . 6HF I PNCH . 3X . 6HFX SMTH .	INFIX
	2 3X.4HCONV.5X.5HF	3X, 4HCONV, 5X, 5HFLTRN, 4X, 5HSCALE, 4X, 4HPRES, 5X, 4HTEMP/	INFIX 57
	3 5X.5F9.0.E12.3.F	5x,5F9.0,E12.3,F6.0,1X,F9.3,2F9.2)	INFIX 58
ISN 0847	999 FORMAT (1H1)		INFIX 59
15N 0848	998 FORMAT(/////10X, 934PROB	998 FORMAT(////10x, 934PROBLEM NO. 32-WARNING-INPUT REMESH AND IDISK	K FAIL SIA
	ICLUES ARE INCOMPATIBLE.	ICLUES ARE INCOMPATIBLE. REMESH RESET TO FALSE.///)	FATLS315
15N 0849	997 FDRMAT(/////10X, 90HPROB	997 FORMATE////10x, 90HPROBLEM NO. 27-WARNING-INPUT ISPAN AND BODY C	C FAIL S316
	ILUES ARE INCOMPATIBLE. ISPAN RESET TO TRUE.///	ISPAN RESET TO TRUE.///)	FAIL S317
15N 0850	996 FTRMAT(////10x, 85HPRDB	996 FTRMAT(////10X+ 854FROBLEM NO. 29-WARNING-APEA AND AXISYM CLUES AFAIL 5318	AFAIL S318
*	INE INCOMPATIBLE. AXISYM	AXYSYM RESET TO TRUE .///)	FATL S319
15N 0851	995 FORMAT(/////10X,114HPROR	395 FORMAT(////10x,114HPROBLEM NO. 28-INPUT YAW AND BODY CLUES ARE INFAILS320	INFAIL 5320
	ICOMPATIBLE. YAWED WING	ICOMPATIBLE. YAWED WING OPTION CAN ONLY BE RUN FOR AN ISOLATED WINFAILSZZZ	INFATL S321
	26.///)		FA11.5322
1SN 0852	994 FORMAT(/////10X, 76HPPOB	994 FORMAT(////10x, 76HPPOBLEM NO. 21-MACH NUNBER OUTSIDE OF RANGE OFFAILS323	DFFAIL S323
	1 0 TO 1. SOLV RESET TO FALSE.///)	*ALSE.///)	FA11 5324
ISN 0853	993 FORMAT(/////10X, 78HPROB	993 FORMAT(////10X, 78HPROBLEM NO. 22-GAMMA CHANGED FROM DEFAULT VALUFAILS325	UFAIL S325
	1E. CHECK VALUE FOR CORRECTNESS.///)	CTNESS.///)	FAIL 5326
ISN 0854	992 FORMAT(/////10x, 99HPRDB	992 FORMAT(////10%, 994PATOBLEM NO. 19-EMEXP(1) AND/OR EMEXP(2) CHANGEFAILS327	SEFAIL S327
	10 FROM DEFAULT VALUES.	ID FPOM DEFAULT VALUES. CHECK VALUES FOR CORPECTIVESS.///)	FAIL S328
15N 0855	991 FORMAT(/////10X, 76HPROB	991 FORMAT(////10X. 764PROBLEM NO. 20-RFACT DUTSIDE RANGE OF 0 TO 1.	
	1 RFACT RESET TO DEFAULT VALUE.///)	(ALUE.///)	
15N 0856	990 FORMAT(/////10x, 734PROBLEM NO.	EM NO. 14-RSUB DUTSIDE OF RANGE OF 0 TO	PAIL S331
	12. RESET TO DEFAULT VALUE.///)		
15N 0857	•	EM NO. 15-PSUBX DUTSIDE OF RANGE OF 0 TO	
	12. RESET TO DEFAULT VALUE.///)		
ISN ORSR	ONG FTOWATELLLLINK . 734DOR	STATE OF DAME OF DAME OF DAME OF DAME OF DAME	

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1 DEFAULT VALUE.//) 15N 0860 15N 0862 15N 0863 15N 0863 15N 0863 15N 0863 15N 0863 15N 0864 15N 0864 15N 0864 15N 0864 15N 0864 15N 0864 15N 0865 15N 0865 15N 0865 15N 0864 15N 0865 15N 0865 15N 0866 15N 0867 15N 0870 15N 0871 15N 0871 15N 0871 15N 0872 15N 0873 15N 0873 15N 0873 15N 0874 15N 0875 15N 0875 15N 0877 1	1 DEFAMIT VALUE.///) 10 DEFAMIT VALUE.///) 10 DEFAMIT VALUE.///) 11 DEFAMIT VALUE.///) 11 DEFAMIT VALUE.///) 12 DEFAMIT VALUE.///) 12 DEFAMIT VALUE.///) 13 DEFAMIT VALUE.///) 14 DEFAMIT VALUE.///) 15 DEFAMIT VALUE.///) 16 DEFAMIT VALUE.///) 16 DEFAMIT VALUE.///) 17 DEFAMIT VALUE.////) 18 DEFAMIT VALUE.////) 18 DEFAMIT VALUE.////) 18 DEFAMIT VALUE.////) 19 DEFAMIT VALUE.////) 19 DEFAMIT VALUE.////) 10 DEFAMIT VALUE.////) 10 DEFAMIT VALUE.///////// 10 DEFAMIT VALUE.////////////////////////////////////
	SLEM NO. 18-EPSEX LESS THAN ZERO. RESET TOFAIL \$339 SLEM NO. 37-EPSI LESS THAN ZERO. RESET TOFAIL \$345 SLEM NO. 37-EPSI LESS THAN ZERO. RESET TOFAIL \$345 SLEM NO. 26-WARNING-INPUT REYNOLDSS NUMBER FAIL \$345 SLEM NO. 26-WARNING-INPUT REYNOLDSS NUMBER FAIL \$345 SLEM NO. 26-WARNING-INPUT REYNOLDSS NUMBER FAIL \$345 SLEM NO. 5-TOO MANY L.E. PLANFORM PAIRS. FAIL \$345 SLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAIL \$345 SLEM NO. 5-TOO MANY AIRFOIL ORDINATES AT SFAIL \$355 ST BE LESS THAN 11.//) ST BE LESS THAN 91/SUPFACE.//) FAIL \$355 SLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAIL \$355 SLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAIL \$355 SLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAIL \$355 SLEM NO. 3-TOO MANY STREAMWISE BODY COORDINFAIL \$355 SLEM NO. 3-TOO MANY BODY SPAN LOCATIONS INPFAIL \$355 SLEM NO. 3-TOO MANY BODY SPAN LOCATIONS INFFAIL \$355 SLEM NO. 3-TOO MANY BODY SIRE WALL LOCATIONFAIL \$355 SLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL \$355 SLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL \$365 SLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL \$365
	BLEM NO. 37-EPSI LESS THAN ZERD. RESET TOFAILS341  SLEM NO. 13-NUMBER OF VISCOUS-INVISCID ITERFAILS343  AX RESET TO 20.(//)  BLEM NO. 26-WARNING-INPUT REYNOLDBS NUMBER FAILS345  BLEM NO. 26-WARNING-INPUT REYNOLDBS NUMBER FAILS345  BLEM NO. 4-TOO MANY L.E. PLANFORM PAIRS. FAILS347  LESS.///)  BLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAILS349  LESS.///)  BLEM NO. 1-TOO MANY AIRFOIL SECTIONS INPUT FAILS353  BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353  BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353  BLEM NO. 3-TOO MANY AIRFOIL ORDINATES AT SFAILS353  BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355  BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355  BLEM NO. 3-TOO MANY STREAMWISE BODY COORDINFAILS355  BLEM NO. 3-TOO MANY BODY SPAN LOCATIONS INFAILS355  BLEM NO. 7-TOO MANY BODY SPAN LOCATIONS INFAILS355  BLEM NO. 8-TOO MANY BODY SIRE WALL LOCATIONFAILS355  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365
	BLEM NO. 37-EPSI LESS THAN ZERO. RESET TOFAILS343  34 MAY RESET TO 20.///)  35 MANNO. 26-WARNING-INPUT REYNOLDOS NUMBER FAILS345  36 MANY L.E. PLANFORM PAIRS. FAILS347  36 MANY T.E. PLANFORM PAIRS. FAILS349  36 MANY T.E. PLANFORM PAIRS. FAILS349  36 MANY T.E. PLANFORM PAIRS. FAILS349  36 MANY AIRFOIL SECTIONS INPUT FAILS353  36 MANNO. 2- TOO MANY AIRFOIL SECTIONS INPUT FAILS353  36 MANNO. 2- TOO MANY AIRFOIL ORDINATES AT SFAILS353  36 MANNO. 3-TOO MANY WING TWISTS INPUT. NUMBER ILSSS.///)  37 MANNOR TO 3-TOO MANY STREAMWISE BODY COORDINFAILS353  38 MANNO. 3-TOO MANY BODY SPAN LOCATIONS INPITIESSS  38 MANNO. 3-TOO MANY BODY SIRE WALL LOCATIONS INFAILS353  38 MANNO. 3-TOO MANY BODY SIRE WALL LOCATIONS INFAILS353  39 MANNO. 3-TOO MANY BODY SIRE WALL LOCATIONS INFAILS353  30 OR LESS.///)  31 MANNOR MANNORY SIRE WALL LOCATIONS INFAILS353  30 OR LESS.///)  31 MANNOR MANNORY SIRE WALL LOCATIONS INFAILS355  31 MANNOR MANNORY SIRE WALL LOCATIONS INFAILS355  34 MANNOR MANNORY SIRE WALL LOCATIONS INFAILS355  34 MANNOR MANNORY SIRE WALL LOCATIONS INFAILS355  34 MANNOR MANNOR MANNORY SIRE WALL LOCATIONS INFAILS355  34 MANNOR MANNOR MANNORY SIRE WALL LOCATIONS INFAILS355  35 MANNOR MANNOR MANNORY SIRE WALL LOCATIONS INFAILS355  36 MANNOR MANN
	FAIL S342  3LEM NO. 13-NUMBER OF VISCOUS-INVISCID ITERFAIL S343  3LEM NO. 26-WARNING-INPUT REYNOLDSS NUMBER FAIL S345  3LEM NO. 4-TOO MANY L.E. PLANFORM PAIRS. FAIL S347  LESS.//)  3LEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAIL S347  LESS.//)  3LEM NO. 5-TOO MANY AIRFOIL SECTIONS INPUT FAIL S359  3LEM NO. 1-TOO MANY AIRFOIL SECTIONS INPUT FAIL S351  3LEM NO. 2- TOO MANY AIRFOIL SECTIONS INPUT FAIL S353  3LEM NO. 2- TOO MANY AIRFOIL SECTIONS INPUT FAIL S353  3LEM NO. 3-TOO MANY AIRFOIL ORDINATES AT SFAIL S353  3LEM NO. 3-TOO MANY AIRFOIL ORDINATES AT SFAIL S353  3LEM NO. 3-TOO MANY AIRFOIL ORDINATES AT SFAIL S353  3LEM NO. 3-TOO MANY BING TWISTS INPUT. NUMFAIL S355  3LEM NO. 3-TOO MANY BOOY SPAN LOCATIONS INPAIL S353  3LEM NO. 8-TOO MANY BOOY SPAN LOCATIONS INFAIL S363  3LEM NO. 8-TOO MANY BOOY SPAN LOCATIONS INFAIL S363  3LEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL S365  3LEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL S365  5AN SAN SAN SAN SAN SAN SAN SAN SAN SAN S
	SLEM NO. 13-NUMBER OF VISCOUS-INVISCID ITERFAIL 5343  AX RESET TO 20.///)  AX RESET TO 20.///)  ALUE, ///)  BALLESA AND. 26-WARNING-INDUT REYNOLDOS NUMBER FAIL 5345  ALLESS.///)  BLEM NO. 4-TOO MANY L.E. PLANFORM PAIRS. FAIL 5349  LESS.///)  BLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAIL 5349  LESS.///)  BLEM NO. 1-TOO MANY AIRFOIL SECTIONS INPUT FAIL 5350  BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAIL 5353  BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAIL 5353  BLEM NO. 3-TOO MANY AIRFOIL ORDINATES AT SFAIL 5355  BLEM NO. 3-TOO MANY AIRFOIL ORDINATES AT SFAIL 5355  BLEM NO. 3-TOO MANY BING TWISTS INPUT. NUMFAIL 5355  BLEM NO. 3-TOO MANY STREAWWISE BODY COORDINFAIL 5355  BLEM NO. 7-TOO MANY BODY SPAN LOCATIONS INFAIL 5360  BROKE NUMBER TO 90 OR LESS.///)  BLESS.///)  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL 5365  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL 5365  BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REDFAIL 5365  BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REDFAIL 5365
	AX RESET TO 20.///)  ALLESANDO MONO - INPUT REYNOLDOS NUMBER FAILS345  BLEM NO. 4-TOO MANY L.E. PLANFORM PAIRS. FAILS347  LESS.///)  BLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAILS347  LESS.///)  BLEM NO. 1-TOO MANY AIRFOIL SECTIONS INPUT FAILS353  BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353  BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353  BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353  BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  BLEM NO. 31-SWEEP ANGLE TOO LARGE REDFAILS355  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REDFAILS365
	BLEM NO. 26-WARNING-INPUT REYNOLDSS NUMBER FAILS345  VALUE.///)  SIEM NO. 4-TOO MANY L.E. PLANFORM PAIRS.  FAILS347  LESS.///)  SLESS.///)  SLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS.  FAILS350  SLEM NO. 1-TOO MANY AIRFOIL ORDINATES AT SFAILS353  SLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353  SLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353  SLEM NO. 2-TOO MANY WING TWISTS INPUT. NUMFAILS355  SLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  SLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  SLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  SLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS3536  SLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  SLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  FAILS350  SLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  SLEM NO. 31-SWEEP ANGLE TOO LARGE REDFAILS355  TO 20 OR LESS.///)  SLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  SLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  SAN STARS
	FAILS346 SILEM NO. 4-TOO MANY L.E. PLANFORM PAIRS. FAILS347 BLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAILS349 LESS./// BLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAILS349 LESS./// BLEM NO. 1-TOO MANY AIRFOIL ORDINATES AT SFAILS353 ST BE LESS THAN 91/SUFFACE./// FAILS353 BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353 BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355 BLEM NO. 3-TOO MANY STREAMWISE BODY COORDINFAILS355 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS359 BLEM NO. 7-TOO MANY BODY SPAN LOCATIONS INFAILS359 BLEM NO. 8-TOO MANY BODY SIBE WALL LOCATIONFAILS353 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REAFAILS365
	BLEM NO. 4-TOO MANY L.E. PLANFORM PAIRS. FAILS347 LESS.///) LESS.///) BLESS.///) BLESS.///) BLESS.///) BLESS.///) BLESS.///) BLESS.///) BLEM NO. 2-TOO MANY AIRFOIL SECTIONS INPUT FAILS353 BLEM NO. 2-TOO MANY AIRFOIL SECTIONS INPUT FAILS353 BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT SFAILS353 BLEM NO. 3-TOO MANY AIRFOIL ORDINATES AT SFAILS353 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMBERILS353 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMBERILS355 BLEM NO. 3-TOO MANY STREAMWISE BODY COORDINFAILS355 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS353 BLEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS353 BLEM NO. 8-TOO MANY BODY SIRE WALL LOCATIONFAILS353 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 12-INPUT CRUDE WESH TOO LARGE. REFAILS365 BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REAFAILS365
	LESS.///)  BLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAILS349 BLEM NO. 5-TOO MANY AIRFOIL SECTIONS INPUT FAILS351 BLEM NO. 1-TOO MANY AIRFOIL SECTIONS INPUT FAILS353 BLEM NO. 2- TOO MANY AIRFOIL ORDINATES AT SFAILS353 WUMBER MJST BE LESS THAN 91/SURFACE.///) FAILS353 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355 BLEM NO. 3-TOO MANY STREAWWISE BODY COORDINFAILS355 BLEM NO. 7-TOO MANY STREAWWISE BODY COORDINFAILS355 BLEM NO. 7-TOO MANY BODY SPAN LOCATIONS INPFAILS363 BLEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS363 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REDFAILS365 FAILS364
	BLEM NO. 5-TOO MANY T.E. PLANFORM PAIRS. FAILS369 LESS.///) BLESS.///) BLESS.///) BLESS.///) BLESS.///) BLEM NO. 1-TOO MANY AIRFOIL ORDINATES AT SFAILS353 BLEM NO. 2- TOO MANY AIRFOIL ORDINATES AT SFAILS353 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS353 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS354 BLEM NO. 3-SWEEP ANGLE TOO LARGE FOR YAVEDFAILS356 BLEM NO. 3-SWEEP ANGLE TOO LARGE FOR YAVEDFAILS353 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS353 BLEM NO. 3-TOO MANY BODY SPAN LOCATIONS IMPFAILS353 BLEM NO. 9-TOO MANY BODY SPAN LOCATIONS IMPFAILS363 BLEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363 BLEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 12-INPUT CRUDE MESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE MESH TOO LARGE. REDFAILS365
	LESS.///)  SET BE LESS THAN 11.///)  ST BE LESS THAN 11.///)  ST BE LESS THAN 11.///)  SHEN NO. 2 - TOO MANY AIRFOIL ORDINATES AT STALS353  SHEN NO. 2 - TOO MANY WING TWISTS INPUT. NUMFAILS353  SHEN NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355  SHEN NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS356  SHEN NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS359  REDUCE NUMBER TO 90 OR LESS.///)  SHEN NO. 9-TOO MANY BODY SPAN LOCATIONS INFFAILS363  SHEN NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363  TO 20 OR LESS.///)  SHEN NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  SHEN NO. 12-INPUT CRUDE MESH TOO LARGE. REDFAILS365  SAN STAN
	BLEM NO. 1-TOO MANY AIRFOIL SECTIONS INPUT FAILS351 ST BE LESS THAN 11.///) ST BE LESS THAN 91.5///) BLEM NO. 2-TOO MANY AIRFOIL ORDINATES AT STAILS353 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355 I OR LESS.///) BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR VANCOFAILS355 BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR VANCOFAILS355 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS356 BROWCE NUMBER TO 90 OR LESS.///) BLEM NO. 9-TOO MANY BODY SPAN LOCATIONS INFAILS363 BLEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363 BLEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE MESH TOO LARGE. REDFAILS365 FAILS365
	ST BE LESS THAN 11.///)  SLEM NO. 2 - TOD MANY AIRFOIL ORDINATES AT SFAILS353  SLEM NO. 2 - TOD MANY AIRFOIL ORDINATES AT SFAILS353  SLEM NO. 3 - TOO MANY WING TWISTS INPUT. NUMFAILS354  SLEM NO. 3 - SWEEP ANGLE TOO LARGE FOR VANEDFAILS355  SLEM NO. 7 - TOO MANY STREAMWISE BODY COORDINFAILS357  FAILS359  SLEM NO. 7 - TOO MANY BODY SPAN LOCATIONS INPFAILS359  SLEM NO. 8 - TOO MANY BODY SIBE WALL LOCATIONFAILS353  SLEM NO. 9 - TOO MANY BODY SIBE WALL LOCATIONFAILS363  TO 20 OR LESS.///)  SLEM NO. 12 - INPUT FINE WESH TOO LARGE. REDFAILS365  SLEM NO. 11 - INPUT CRUDE WESH TOO LARGE. REDFAILS365  FAILS365
	BLEM NO. 2- TOO MANY AIRFOIL ORDINATES AT SFAILS353 NUMBER MIST BE LESS THAN 91/SUPFACE.///) FAILS354 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355 BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS359 BLEM NO. 7-TOO MANY BODY SPAN LOCATIONS INPFAILS359 OR LESS.///) BLEM NO. 8-TOO MANY BODY SIBE WALL LOCATIONFAILS363 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REDFAILS365 FAILS365
	NUMBER MUST BE LESS THAN 91/SURFACE.///) FAILS354 BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355 BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS355 BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS359 BREWCE NUMBER TO 90 OR LESS.///) BLEM NO. 7-TOO MANY BODY SPAN LOCATIONS INPFAILS360 BLEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS363 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REAFAILS365 FAILS365
	BLEM NO. 3-TOO MANY WING TWISTS INPUT. NUMFAILS355 I OR LESS.///) BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAVEDFAILS355 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS357 BEDUCE NUMBER TO 90 OR LESS.///) BLEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS369 BLEM NO. 9-TOO MANY BODY SIRE WALL LOCATIONFAILS362 BLEM NO. 9-TOO MANY BODY SIRE WALL LOCATIONFAILS363 TO 20 OR LESS.///) BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE MESH TOO LARGE. REFAILS365 FAILS365
	I OR LESS.///) BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS356 BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS357 FAILS359 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS358 BLEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS363 BLEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363 TO 20 OR LESS.///) BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 BLEM NO. 11-INPUT CRUDE MESH TOO LARGE. REDFAILS365 FAILS365
	BLEM NO. 31-SWEEP ANGLE TOO LARGE FOR YAWEDFAILS357  FAILS358  BLEM NO. 7-700 MANY STREAMWISE BODY COORDINFAILS359  BEDWICE NUMBER TO 90 OR LESS.///)  BLEM NO. 8-700 MANY BODY SPAN LOCATIONS INPFAILS363  BLEM NO. 9-700 MANY BODY SIBE WALL LOCATIONFAILS363  TO 20 OR LESS.///)  BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  BLEM NO. 11-INPUT CRUDE MESH TOO LARGE. REDFAILS365  FAILS365
	FAIL S358 BLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAIL S358 BREDACE NUMBER TO 90 OR LESS.///) FAIL S369 SHEM NO. 8-TOO WANY BODY SPAN LOCATIONS INPFAIL S363 BLEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAIL S363 TO 20 OR LESS.///) BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAIL S365 SHEM NO. 11-INPUT CRUDE WESH TOO LARGE. REAL S365 FAIL S365
	SLEM NO. 7-TOO MANY STREAMWISE BODY COORDINFAILS359 REDUCE NUMBER TO 90 OR LESS.///) BLEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS360 OR LESS.///) TO 20 OR LESS.///) BLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 SLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 SLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REAFAILS365 SALEM NO. 11-INPUT CRUDE WESH TOO LARGE. REAFAILS365
	REDUCE NUMBER TO 90 OR LESS.///)  SLEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS361  OOR LESS.///)  SLEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS362  TO 20 OR LESS.///)  SLEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365  SLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REFAILS365  FAILS364
	3LEM NO. 8-TOO MANY BODY SPAN LOCATIONS INPFAILS361 5. OR LESS.///) 3LEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS362 TO 20 OR LESS.///) 3LEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 3LEM NO. 11-INPUT CRUDE WESH TOO LARGE. REFAILS365 5A1LS365
	FAILS362 3LEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363 TO 20 OR LESS.///) 3LEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 5AILS365 3LEM NO. 11-INPUT CRUDE WESH TOO LARGE. REALLS365 FAILS365
	3LEM NO. 9-TOO MANY BODY SIBE WALL LOCATIONFAILS363 TO 20 OR LESS.///) 3LEM NO. 12-INPUT FINE WESH TOO LARGE. REDFAILS365 SLEM NO. 11-INPUT CRUDE WESH TOO LARGE. REALS365 FAILS365
	TO 20 OR LESS.///) 3LEM NO. 12-INPUT FINE MESH TOO LARGE. REDFAIL 5365 3LEM NO. 11-INPUT CRUDE MESH TOO LARGE. REALLS367 5AN SACH NO. 11-INPUT CRUDE MESH TOO LARGE. REALLS367
	*
	FA11 STAP
8 8	965 FORMAT(////10x, 51HPPOBLEM NO. 36-INPUT BODY SLOPES DO NOT COVER FAILS369
8 8	6 FAIL S370
596	BLEM NO. 23-WING WATERLINE NOT ON BODY. INFAILST!
. 963	FAIL S372
The state of the s	FORMAT(////10x,1064PPDBLEM ND. 39-NUMBER OF INDUT L.E./T.E. MAPPIFAILS373
ING SEGMENTS ARE CREATER THAN 12. REDUCE	ING SEGMENTS ARE GREATER THAN 12. REDUCE NUMBER OF SEGMENTS.///) FAIL 5374
ISN 0878 962 FORMATI/////10X, 55HPROBLEM NO. 40-TOD M	962 FORMAT(////10X. 554PROBLEM NO. 40-TOO MANY INPUT POINTS ON MAPPINFAIL S375
16 SEGMENT,13,39H. NUMBER OF POINTS MUST BE 10 OR LESS.///)	ER OF POINTS MUST BE 10 OR LESS.///) FAILS376
ISN 0879 RETUGN	INPUTSSI
ISN 0880 END	INPUT352

ADPTIONS IN EFFECT MANNE (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE)

MOPTIONS IN EFFECT#SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 879, PROGRAM SIZE = 27424, SURPROGRAM NAME = INPUT SOURCE STATEMENTS = \*STAT1STICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

HE ONE STED OPTIONS OPT(21. NOMAP

LEVEL 2.2 (SEPT 76)

5(1) DUMP OPTIONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBBL(NONE)

STATE   CONTRACT   C			-	-									-		
COMMON / INDEX / JAMA (1700) - XTER (30) - CORD (30) - XTEMP (20) - TTEMP (20) - XTEMP (20) - XT	200		SUBREME	NE SETOP									25		
Common This Surroutine Cupoures PLANFORD PRANMETERS AND GRID, AND SECTION TREE CONTINUES OF CORPORATION (CRED 1) A TEPE (30) CORPORATION (CRED 1) A TEPE (30) CORPORATION (CRED 1) A TEPE (30) COMMON		U											SFT	90	
COMMON / INTER / XIEP(30) , XTEP(30) , CORDP(30) , XTEMP(20) , TEMP(20) , TEM		****	*** THIS	SUBROUTI	NE COM	PUTES	2	NFORM DAR	¥	ETERS AND	3	TO. AND **		400	
COMMON / NAME (20) - XTEP (30) - CORDP (30) - XTEP (20) - XTEP (20		C****	*** TRANS	FORMES G	EOME TR	A AND	GR 1	D. ****	:	*********	:	*********	-	900	
COMMON   YARPI   COMMON   YARPI   COMMON   YARVI   COMMON   YARVI   COMMON   YARVI   COMMON   YARVI		0											SET	9 40	
TYTEMPLENCE	003		DIMENSIO	2	XLFP	(30)	×			COPOP(30)			- 0	F 1126	
COMMON / BODVA / XUZ (FOO)			-		YTEM	P(20)								F 1127	
COMMON / YAW! / T(20,00)   XCL(00)   XLCL(00)   XCL(00)   XCL(00	*00		EQUIVALE	NCE	(XEE	0(11)0	×16	111		(XTEP(1),C	×	(1)	. IRM	18	
COMMON / FLOSO 1 12120.90) 1 12120.90   12120.90   1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					COB	DP (11)	EX	((1))					184	10	
COMMON   BODVA   XUCL(90)   XLCL(90)   XLCL(90)   XLCL(90)   XZMH8(90)   YMH8(90)   YMH8(90)   YMH8(90)   YMH8(90)   YMH8(90)   XLCL(90)   XL	900		COMMON	TAWI	1120	106.		2120,901					FIX	CYA	
XZWHB(90)   XYWHH(90)   XYWHH(90)   WHOR	900		COMMON			(06)	. 2	UCL (90)		XLCL (90)		ACL (90)	MOD .	FIXSO	
2 ZWT.1(90) : ZUC.1 P(90) : ZLC.1 P(90) : ZL					HWZX	8(90)	. 7	MHR (90)		XYMHB(90)		VMHB( 90)	MOD .	F IXE	
3 ZUAL1(90) ZUAL1(90) ZACLIP(90) ZACLIP(90)  COMMON / VANOPT / KIX			2		MIC			רט		MHR7		MHBY	· COM	F IX61	
4 COMMON / YAWOPT / KIX			3		משל	1(90)	. 2	UCL. 1P (90)		2 La 1(90)		ZCC 1P(90)	· COM	F TX62	
COMMON / YANDPT / KIX					SMAG	16901	. 7	MHB1P(90)		YMHB1(90)		VMHB 1 P ( 90 )	COM	F IXE	
Marian   M	100		COMMON /	YAWOPT	/ KIX			2x		K3X		KAX	· COM	FIXE	
2 COMMON / INTER / XI(100)					KSX			×9		K7X		KBX	· COM	F IXBE	
COMMON / INTER / XI(90)   ETA(30)   XIN(90)			2		KPIX		*	MIX					0	F IXBC	
1	15N 0008		COMMON			10		TA(30)		27 (20)		(06)NIX	TNT .	ER 2	
2			1		XIL	106	×	10(90)		106 JUIX		FTAL (30)	INT .	E 10 3	_
3 2CVU 2LVL 7RVL 7RVL 7CVL 7CVL 4 YMAX 2LMAX YMAX 2LMAX YMIN 7 YMIN 8 YMIN 7 YMIN 8 YMIN 7 YMIN 8 YMIN 8 YMIN 7 YMIN 8 YM			2		ETAC	(30)		TAR ( 30 )		COEU		COEL	TNT .	4 43	
## POUM(30) - EDUM(30) - XMIN - XMAX  YMAX			3		ZCW		. 2	LYL		ZRVL		ZCVL	INT	FR	
COMMON   INDEX   JMAX   PAVU   TAVU   TAVUE   TAV			•		POLIN	(30)		DUM(30)		MIN		XMAX	INT	60	
COMMON / INDEX / JMAX			9		YMAX		2 .	MAX		WIN		NIMZ	INT	1 43	
COMMON / INDEX / JMAX , KMAX , LMAX , LTMI , JMLE			9		27.80		. 7	DWG					INT	8 43	
1	600		COMMON /	INDEX /	MAX		*	MAX		LMAX		кти1	ONI .	EX	
2 JWTE , JTF(30) , LWINGL , LWINGU , JWAX1 JWAX1 , KMAX1 , KMAX1 , LMAX1 , KROOT , JP1    COMMUN / FLAGS / 1015K , 15AVE , 19LOT , MSHINT , 10    2 EXTUSH , REWESH , IMAPP , YAW    1 HOOJIN , AXISYM , AREA , IFOLLT , MSHINT , 10    2 EXTUSH , REWESH , IMAPP , YAW    1 HOOJIN , AXISYM , AREA , IFOLLT , MSHINT , 10    2 EXTUSH , REWESH , IMAPP , YAW    2 EXTUSH , REWESH , IMAPR , YAW    3 EXTUSH , REWESH , IMAPR , YAW    4 EXTUSH , REWESH , IMAPR , YAW    5 EXTUSH , REWESH , IMAPR , YAW    6 IBUMP , IVISC , ITWIST , IFOLLT    7 IBODIN , AXISYM , AREA , IBLOUT    7 IBODIN , AXISYM , AREA , STELL    7 IBODIN , XLER    7 XER    7			1		KTIP		*	1101		JALE		JLE (30)	. IND	EX	
3 COMMUN / FLAGS / ID15K , ISAVE , IDLOT , WSHINT , ID15K , ISAVE , IMAPP , VAW , ID15K , ISAVE , IDLOT , WSHINT , ID15K , ID10T ,			2		JAME		•	TF (30)		LWINGL		LWINGU	ONE .	EX	
COMMUN / FLAGS / IDISK			3		MAX	1		MAX1		LMAXI		KROOT	· COM	FIX	
COMMON / FLAGS / IDISK , ISAVE , IPLOT , MSHINT    2					105								IND	EX	
1 SOLV - WBCPRT - BBCPRT - BODY 3 EXTWEN - ISPAN - IFINR - ICRUDR 4 A IBUME - IVISC - ITWIST - IFOLLT 1 BOOIN - AXISVM - AREA - IRLOUT 1 DISK - ISAVE - IPLOT - MSHINT 2 FCR - ISAN - IFINR - ICRUDR 3 SOLV - WBCPRT - BBCPRT - BODY 4 EXTMSH - IVISC - ITWIST - ICOLUR 5 EXTWEN - IVISC - ITWIST - IFOLLT 6 IBUMP - IVISC - ITWIST - IFOLLT 6 IBUMP - IVISC - ITWIST - IFOLLT 7 IBODIN - AXISVM - AREA - IBLOUT 6 IBUMP - IVISC - ITWIST - IFOLLT 7 IBODIN - AXISVM - AREA - IBLOUT 6 STRUE 7 XLET - XTET - SREE - SMEEP 7 TIP 7 XLET - XTET - STRUE 7 TIPOLT 7 SPAN - THICK(110) - STRUE	ISN 0010		COMMON /	FLAGS /	ID1S	¥		SAVE		IPLOT		MSHINT	. FLA	65 2	
2 EXTYSH BEWESH IMAPP YAW  3 EXTYSH BEWESH IMAPP YAW  4 IBUMP INISC ITWIST IFOULT  1 IDGICAL IDISK ISAVE IPLOT MSHINT  2 ECR ISAN IFINR ICRUDR  3 EXTYSH BUMP IFINR ICRUDR  4 COMMON / WING / YROOT XLET XTER YTIP  1 COMMON / WING / YROOT XLET XTER YTIP  2 XLET XTET SREE SWEEP  3 WILL YTEI(10) XTEI(10) STRUE  4 CROOT SSPAN THICK(11) ZNNSWL					SOLV			ВСРЯТ		BBCPRT		MODY	. FLA	65	
3 EXTMSH REMESH IMAPP YAW  1 IBUMP IVISC ITWIST IFOILT  1 LOGICAL IBUMP AXISYM AREA IBLOUT  2 EXTMSH ISAVE IPONT BECONT  3 EXTMSH REWESH IMAPR YAW  4 IBUMP IVISC ITWIST IFOILT  COMMON / WING / YROOT XLER XTER YTIP  2 AXISYM AREA IBLOUT  COMMON / WING / YROOT XLER XTER YTIP  3 AXISYM AREA SEEP  4 CROOT SSPAN THISTO STRUE  3 WITH YEI(10) XLET(10) STRUE  4 CROOT SSPAN THICK(11) ZWIGHL			2		FCR			SPAN		IF INR		1CRUDE	. IND	TX	
BODIN   AXISYM   AREA   IFOILT			3		EXT	SH		EMESH		IMAPP		YAW	. IND	TX	
10015K   15AVE   19LOT   19LOT   19LOUT   10015K   15AVE   19LOT   1			4		IBU	4	-	VISC		ITWIST		PFOILT	. IND	TX	
LOGICAL IDISK ISAVE IPLOT MSHINT  2			9	. 25	1800	IN		XISAM		AREA		IBLOUT	IND	TX	
SOLV   WRCPRT   BRCPRT   BODY	110	7	LOGICAL		1018	*	-	SAVE		TPLOT		MSHINT	. COM	F IX 4	
2 FCR . ISPAN . IFINR . ICRUDR . IEMPR . YAW . IBLWP . IVISC . ITWIST . IFOILT . IEMPR . YAW . YROOT . XLER . XTER . YTIP . YTER . YTIP . XLET . XTER . YTIP . XLET . XTER . SREE . SWEEP . XLET . XTER . YTER . SREE . SWEEP . XLET . XTER . YTER . YTER . YTER . YTER . YTER . SWEEP			/		SOLV			BCPRT		89CPRT		BODY	· COM	FIX	
3 EXTMSH REWESH IMAPR YAW  1BUMP IVISC ITWIST IFOILT  COMMON / WING / YROOT XIER XIER YIIP  XLET XTER SREE  2 NHEI YTEI(10) XLEI(10) STRUE  3 CROOT SSPAN THICK(II) ZWOSK			2		FCR			SPAN		IF INR		ICANDR	· COM	F TX 6	
\$ 1800IN . AXISYM . AREA . IFOILT . IFOILT			2	/	EXTM	SH		EMESH		IMAPR		YAW	· COM	FIX	
5 IBODIN . AXISYM . AREA . IBLOUT COMMON / WING / YROOT . XLEP . XTEP . YTIP			*		180	٥	-	VISC		ITWIST		FOILT	· COM	FIX	
COMMON / WING / YROOT , XLER , XTER , YTIP , 1  2			5		1800	11	•	MASIX		AREA		IBLOUT	CO	FIX	
. XTET . SREF . SWEEP . YLF1(10) . STRUE YTE1(10) . XTE1(10) . SXPOS THICK(11) . ZWNGWL	210		COMMON /	NING Y	YROO	1	× .	LER		XTER		MIP	. WIN	2 5	
. YLF1(10) . XLF1(10) . STRUE YTE1(10) . XTE1(10) . SXPOS THICK(11) . ZMNGML .					XLET			TET		SREF		SWEED	. 1110	TX	
. YTEI(10) . XTEI(10) . SXPOS .		1	2		ME			LF1(10)		XLF1(10)		STRUE	divid .	TX E	
. SSPAN . THICK(11) . ZWNGWL .			3		MTET			TE1(10)		XTE1(10)		SUDAXS	. IND	TX	
					-										

EVEL 2.2 (SEPT 76)		SETUP	USV	OS/360 FORTRAN H EXTENDED	H EXTENDED	¥q	DATE 77.295/15-14-19
	9		YTWST(11)			X (180.11).	-
			ZF(180 .11).			XE(30)	
	00		XLEW(30)	. (06)(30)	. CORDW(30) .	COPDINCIE).	_
	•		X1E(30)	. MEACT	. CMEAN	XTEW (30)	. WING 11
	*		NSO	. 161	. KX0(12)	KX1(12)	
	8		NX0(12)			W1(12.10).	-31
	·		XX0(12,10)	), XX1(12,10)	. DXR0(12) .	DXR1(12)	. AIRFOILD
	0		DXT0(12)	. DXT1(12)	. ALPHAN .	MIPLE	. AIRFOILL
	-		MTIPXI	. XLEWX(30)	. XTFWX(30) .	CORDX	. CHOPD 1
			7	aux .	. XLEWP(30) .	XTEWP (30)	. VSCFXB 1
			KSWICH				VSCFX3 2
15N 0013	COMMON	COMMON / PARM /	AI	. A2	. 43	*	. PAPM 2
			AS	. GAMMA	. MACHINO .	COE	. PARM 3
			2	. FWF XP(2)	CK1(30)	CK2 (30)	- PAPM 4
			CK3(30)	· CK4(30)	· CK51(30)		COMP 1X10
	•		CK52(30.90)		. CX1X(30)	CK2X(30)	COMP 1X21
	5		BLOL	· WCOE			COMP 1X12
15N 0014	REAL		MACHINO				COME IX13
	COMMON / XYCOE	/ XYCOE /	X(30.90)	. XIY(30,90). XIX(30)	. XIX(30)		COMP IXIR
			XIVJ(30.90)		· xx(30)		COMP 1X19
	~		XIYK (30.90)	60			COME 1X20
15N 0016	TYONKON / BODY	/ RODA!	XNUSE	. XTAIL	. MRIN(2)	X8 1N(2,35)	
			Martine	Bubia	IRON(21	NOSF	
				1000	171100	2000	6 1000
	,		JIAIL VOINTEDAN		. 106151701	1061	* Sum *
	,		KBWKIGO		· Lax	FK(15)	. 5000
	•		BFK(15)	. CFK(15)	. AFL(15)	BFL(15)	• BODY 6
	v.		GEL(15)	. ABL (15)	· 88L(15)	CBL(15)	. BOOV 7
	9		ACL(2)	• BCL(2)	• CCL(2)	BTYPE	. BODY A
	1		XPRU(90)	• XRBL(90)	. DZRBU(90) .	DZRBL (90)	. CHEN 1 1
	•		NPBU	· NPBL	. WRB .	2880	. 800v ro
	6		ZPRL	. KBMXX(30)	. JANDSEX .	JTAILX	. 800v 11
	4		RP IN (2,35),	). XNDSEX	. XTAILX .	108	FIXCY4 1
15N 0017	COMMON	/ PODV2 /	FX(30,90)	. FY(30,90)	· FZ(30,90)		. COMF IX23
	-		KBMD(30,90)		. LBU(20.90).	LBD(20,90).	
	2		MEPTSX(30).	). LAOD(30.90)			COMP IX25
	3		LBUX (20.30)	(0	. LBDX(20.30)		· COMF TX26
			FYX(20,30).	). OS(20,90)			COMP IX27
15N 0018	COMMON / BODY3	/ BODY3 /	KBMAX		· LBL ·	LLAU	. BOOV 18
			LLALX	· LLBUX	. PBCU(30.90)		. COMF 1X29
	2		KBS	. PBCL (30.90)			COMF 1X30
	3		RBCUX (20,30)	30)	. RBCLX(20,30)	•	. COMF TX31
			DPRCU	. DRBCL	. DRBCUX .	DRBCLX	. COMF 1X32
	S		SALPH(90)	. SALPHX (30)			COMP BX33
15N 0019	CONNON /	BODYBC	/ IBUD	· IBLD	. 18SIDE .	ETABU(10)	. COMF 1X34
			ETABL(10)	. ZBOD(20)	. NRBS .	XPBS(100)	COMP TX35
15N 0020	COMMON	COMMON / PELAXP	/ MAXIT	. MAXITN	. MAXITX .	INCR	. PELAXP 2
			INCOX	. RTEST	. PPESTX .	RSUB	. PELAND 3
	2		RSIEX	• RES IDJ (30)	· FPS	EPSFX	. PELAXP A
	3		.1	. WIX	· JRD .	KRD	. PELAND S
			LRD	. BIGRL		KF	. PELAND A
	9		LE A	. ERROR	. KOUNT	NSUP	. PENESH 3
	9		IPASS				PENESH 4
v							INPTXZI3

		STORY ON
ISN 0022	JF( IPASS GT - 1) GO TO 18	I SI ANNA
U		
****	**** COMPUTE REFERENCE PARAMETERS USING TRAPEZOIDAL WING *******	SETUP 18
	CROOT = XTER-XLER	SETUP 20
0025	11	SETUP 21
9000	SSPAN = VIIP-VR00T	SETUP 22
0027	SWPLE = (XLET-XLER)/SSPAN	SETUP 23
00 Ze	SWPTE = (XTET-XTER)/SSPAN	SETUP 24
6200	SWPLED=ATAN (SWPLE) #18073-14	ARUNNY29
0030	SWPTED=ATAN(SWPTE) #180 / 3.14	ABUNNY30
0031	JF (SREF.6T.0.) GO TO 13	INPT X216
0033	CAV = .5*(FR00T+CTIP)	INPTX217
9034	SREF = CAVESSPAN	INPT X218
	8	PNPT X219
	CAV	INPT X220
0037 14	AR = 2	INPT X221
96 36	TP = CT1P/CRONT	SETUP 27
		SETUP 28
0040		2
1+00	JF(.MOT.BODY) GO TO 12	FRED 68
	CONTRACTOR BOTH CITY CONTRACTOR	
	CELEBRATE ALCHARIC CITIC CONTINUE	
0043	1F(.NOT.1B0D1N) GO TO 230	
0045	JBODLE=0	
9400	JBOOTE=0	FRED 74
0047	DO 201 I=1+MHBY	FRED 75
94 00	JF(JB00LE-6T-0-0) GO TO 201	FPED 76
0000	JF(XYMHB(I),GT.XLER) JBODLE=1-1	FPED 77
0052 201	CONTINUE	FRED 78
0053	DO 211 1=1, MHBY	FPED 79
90054	FF ( JBODTE - GT - 0) GO TO 211	FPED 80
9500	IF(XWHB(1),GT.XTEP) JBODTE=1	FRED R1
ISN 0058 211	CONTINUE	
6500	SUM70=0.0	
	SUMZE=0.0	FPED 84
	SUMVS=0.0	FRED 85
ISN 0062	PO 220 I=JBODLE, JBODTE	FRED 86
	SUM ZUE SUM ZU + ZUCL (1)	FPED 87
	SUMZL=SUMZL+ZLCL(1)	FRED 88
0065 220	SURY S=SURYS+VMHB(1)	FRED 849
	FSUM=JBGDTE - JROOL E+1	FPED 90
1900	ZREU=SUMZU/FSUM	FPED 91
9900	ZRBL=SUMZL/FSUM	FRED 92
6900	YRB=SUMYS/FSUM	FRED 93
0000	WRITE(6,465) ZRBU, ZRBL, YRB	FPED 94
	JF (ZRBL-LE.ZWNGWL-AND.ZRBU-GE.ZWNGWL) GO TO 230	FAILS377
v		FATLS378
u	PROBLEM NO. 23	FAIL S370

LEVEL	2.2	(SEPT 76)	SETUP OS/360 FORTRAN H EXTENDED DA	DATE 77.295/15.14.19
ISN	0073	WRITE(6,964)	•	FAIL S381
ISN		Stor		FA1L 5382
IAN	97.00	230 CONTINUE		EBED 95
NV				0
•		•		INDIXON
		C******* CALCIALA	######## CALCULATE FINE GRID IF NOT READ IN ###################################	
				TNPT X224
ISN	1100		IF( -NOT - : FINE ) CALL FINGRD	INPT X225
		U		INPTX226
		C****** DEFINE	****** DEFINE REFERENCE LENGTH FOR COMPUTATIONAL PLANE	INPTX227
				INDTX228
NSI		IS JF (eNOTe.	JF (SNOTS IMAPR) GO TO 10	INPTX229
Ton Maria	0000	1 %	**************************************	TABLE X230
ISN		50 10 17		INPTX232
		v		INPTX233
ISN		10 1F (BODY)	(HODY) GO TO 11	INPTX234
ISN		XOR = FLIN	= FLIN(XLE1(1),XLE1(2),0.0,YLE1(1),YLE1(2))	INPTX235
ISN		CORDX = FL	= FLIN(XFEI(1) *XTEI(2).0.0.YTEI(1).YTEI(2))-XOR	INPT X236
ISN	00 BB	71 01 09		INPTX237
				INPT X238
ISN				INPT X239
ISN	0600	XOR = XX0(1,1)	(1.1)	INP1 X240
ISN			CORDX = XXI(1.1)-XOR	INPT X241
		C****** COMPUTE XI GRID	E XI GRID - stattstattstattstattstattstattstattst	*
		!		SETUP BI
ISN		17 IF CANOT	IF (aND) EF INE) GO TO 41	IND T X242
201	1000		J = 19JMAX	SETUP 86
200		C) = (C) 1x 0*	ALICO E (AINCO - AUR) ALURDA	CHORD III
201		3 8		INDIXEES
No.	1600	24 00	JEI 9 JMAX	INPTX244
101	200	TO WIN 24	= A1 (3) *CURDX * XUR	INTIACES
		,		SETUP BE
		The board of	CHECK THAT THE DI AVENDI EATLE TO THE DECU	DADE ON S
		-	או וווי ברשו מעם בשרים זו ווור שרים	+ 100000
70.0	8		THE CO. LANGE THE PARTY OF THE LANGE	PAREIN 5
TON		TO NOT TO	IT (	DARE ON O
ISN		THE NEW YORK	MAN AFT IN (X F1(1), M F1(2), O.O. M F1(1), M F1(2),	DADE ON B
NY.		CMAPPTEXX	TAR DOT = 11 - x 0 (1 1)	DADEON O
ISN	010	IMPLE=(XX	PMPLE=(XXO(1,1)-XPLNRL)/CMAPRT	PAREDNIO
ISN		DAMPTE=(XPL	DMPTE=(XPLNRT-XX1(1,1))/CMAPRT	PARETNII
ISN		IF(X)(1).6	IF(X1(1),GT.DMPLE) WRITE(6,487)	PAREDNIZ
ISN		1F(XT(1).0	JF(XT(1), GT. DMPLE) STOP	PARE DNI3
ISN		1F(X)(JMA)	FF(X)(.MAX).LT.(1.0+DMPTE)) WRITE(6.489)	PAREDN14
ISN		PF(X)(JMAX	FF(X)(JMAX).LT.(1.0+DMPTE))STOP	PARFONIS
ISN	0114	487 FURMATICIO	FORMAT(/10x,23HPLANFORM OFF GRID AT LE /)	PARE DNIS
ISN		489 FORMATICAL		PARE DN17
		C******* GRID IN	stant GRID INDICES statestatestatestatestatestatestates	* SETUP 89
				SETUP 90
ISN	0116	43 MAXI = J	JMA X-1	TNPT X2.06

	KT1P1=KT1P+1	SETUP 95 SETUP 96 STRVS 48
	KIX=1 KZX=KMAX K3X=1	STRVS 49 STRVS 50 STRVS 51
	K 4X = KMAX1 K5X = 1 K6X = K 1P K7X = KPOOT	
	KPX = Z KPI X = Z KPI X = Z KPI X = Z KPI X = Z	
000	7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
0136 0136 0136	K1X=2 K2X=5 K3X=3 K4X=4	* * * * * * * * * * * * * * * * * * *
0139 0139 0140	K 6 X = 2 K 6 X = 5 K 7 X = 3 K 8 X = 4	
0 å u	KPIX=4 KMIX=2 KMAX]=KMAX-1 KTM]=KTIP-1 KTIP]=KTIP+1	
0147 45 C C	CONT PNUE	YAW YAW STRVS SETUP
0148	JALE = 0 JATE=0	
0150 0151 0153 0155 50	DG 50 J=1,JMAX IF ((JMLE.EQ.O).AND.(XI(J).GT.O.)) JMLE=J IF ((JMTE.FQ.O).AND.(XI(J).GT.O.)) JWTE=J-1 CONTINUE	SETUPIOZ SETUPIO3 SETUPIOA SETUPIOS
0156 200 CO	SETUPIOS SETUPIOS SETUPIOS SETUPIOS SETUPIOS SESSES OUTBUT COMPUTATIONAL GRID ************************************	****** SETUP107 ************************************

SETUPIED SETUP162 SETUPI63 SETUPIES

82

IF (MONY .EQ. 0) GO TO

81

0218

0216 0219 0220 0223

IRITE(6,475)

IF (MONZ .EQ. 0) GO TO 80

82

0222

MR 1 TE (6,476)

80 CONTINUE

SETUPIE

SETUPIA SETUPIAS

9

2	LEVEL	2.2	(SEPT 76) SETUP OS/360 FORTRAN H EXTENDED D	DATE 77.295/15.14.19
	KSI	0225	474 FIRMATELLIN, 20HX MESH NOT MONDTONICZZ)	SFTUPIA
	ISN		FORMATIC/IX, 20HT MESH NOT	SETUPIO
	100		ETOWATE COLK SOLT MESH NOT	SETUDIA
			TO COMMENCE OF STATE	SETIO 20
				- CETTO
			como se	SETIO172
	ISN	15N 0228	PF (PROV) CALL GEOWER	CRAM
			U	MURFX 1
	ISN	ISN 0230	FF(•NOT•YAW) K7X=KROOT	FIXCVIOO
			O NO SECTION OF SECTIO	SETUPIBI
			Cossesse COMPUTE LEADING FDGE LOCATION ************************************	** SETUPIAS
				SETUPIBS
	ISN		K1 = 1 Ser Aleb of so all N	SETUPIBA
	ISN	0233	K2 * KMAX	SETUPIRS
	ISN	0234		INPT X247
	152	0235	IF (W.E1(N).GT.YLE1(M-1)) GO TO 100	FAIL SORA
				FATL S385
			C PROBLEM NO.6	FA1L 5386
				FAIL S387
	ISN		WRITE(6.971)	FATL S368
	ISN	0238	4000	FAIL S389
	-			FAILSTO
	122		7	FAILSTOI
	ISN			INDTX248
	20			SETUPIOS
	20		11	SETUDIOS
	2			SETUPIOT
	13.		AD THE STATE OF TH	IND X249
	2 2	0242	TE (NEGOTIES) OF 10 102	INPTAZ50
,	N	0240	WK = XB	TOTAL STATE
38	ISN	0250		TACT TON
	ISN	0251	ME WP (K) = 22 OPE	1 APT CATA
	ISN	0252	103 XEPEK) = SLOPE	1NP 1 X255
	ISN	0253	KI = KK -	SFTUDOO!
	ISN	0254	101 CDNT INLE	SETUPZOZ
	ISN	0255	SMPL = SLOPE	PMSFX123
				SETUPZOS
			C****** CMPUTE TRAILING EDGE LOCATION ***********	* SETUP204
				SETUP205
	ISK	0256	h	SETUP206
	20	1520		SETUPZOT
	200	9520		INPT X256
	POT	6070	בר (יובוות) יפוייובוות-וו) פנו נס וס	FAILSSOZ
			y con and appear	FAIL 5393
				FAIL 3594
	ISN	0261	wR1TF (6.071)	FAIL 5395
	ISN		STOP	EA11 5397
			U	FA1L 5398
	ISN	0263	109 KK = K1	FAIL S300
	ISN			INPT X257
	ISN		DO 107 K = K1.4K2	SETUP217

10

SETUP353 SETUP354 SETUP355 SETUP356 SETUP356

SETUP359 SETUP360

SETUP358

PARE DN19
PARE DN20
PARE DN21
PARE DN22
PARE DN22
PARE DN23

PAGE 11

Commence CORPUTE X ARRAY *********************************	15N 0409	6000	2005	500 CONTINE
0412 C NIK 0413 C C NIK 0413 C C NIK 0414 C C C NIK 0418 C C NIK 0428 C C NIK 0428 C C NIK 0430 C C NIK 0440			v	
0411				
0411		01 40		0 700 J=1.JMAX
0413			6	O 700 K=1.KMAX
C TEST JF MA  C TEST JF MA  C TONTINUE  0416		215		(K.J)=CORD(K)#XI(J)+XLE(K)
C TEST JF MA  0416		0413	200	
0414 C DO 710 K=KT 0415 F(XKK+1)+6 0416 710 CMT INKE 0420 720 WRITE(6+750 0421 K2X = KMAX 0422 K2X = KMAX 0423 K2X = KMAX 0424 K2X = KMAX 0423 K2X = KMAX 0424 K2X = KMAX 0425 F(2FWATI-/10X 0424 K2X = CMAXI 0426 730 CMT INKE 0430 DO 600 K = 0430 DO 601 K=KT 0431 F(XKK+J-1) 0435 GO CMT INKE 0436 DO 601 K=KT 0436 DO 601 K=KT 0437 C DO 601 K=KT 0436 DO 601 K=KT 0437 C DO 601 K=KT 0437 C DO 601 K=KT 0436 DO 601 K=KT 0437 C DO 601 K=KT 0436 DO 601 K=KT 0440 WRITE(6+46) 0446 XEEC = (XK 0446 XEEC = (XK 0446 NETE(6+6) 0446 NETE(6+6) 0451 NEEC+XTEC+				TECT IF MADDING CONSSES
0414			, 0	
MITEST#K   MATEST#K		0414		O 710 KEKTIP-KHAX
0416 710 CDNT INUE 0419 60 720 730 0420 720 WRITE (6.750 0422 KWAX = KWAX 0423 KWAX = KWAX 0424 KAX = KWAX 0425 FURMAXI = KWAX 0425 FURMAXI = KWAX 0426 FURMAXI = KWAX 0427 750 FURMY INUE 0428 CONT INUE 0430 CONT INUE 0440 LIF (X & DO 0440 WRITE (6.450 0440 WRITE (6.4		0415	*	TEST#
0418 710 CONTINUE 0419 720 WRITE(6,750 0422 KZX = KNAX 0423 KXX = KNAX 0424 KAX = KNAX 0425 TSO FURNAT(710X 0426 TSO FURNAT(710X 0428 TSO FURNAT(710X 0428 TSO FURNAT(710X 0428 TSO FURNAT(710X 0429 CONTINUE 0430 DO 600 K = 0430 0441 F(XKK,J-1) 0436 DO 601 K=KT 0442 DO 601 K=KT 0443 DO 601 K=KT 0443 DO 601 K=KT 0444 DO 601 K=KT 0445 DO 601 K=KT 0445 DO 601 K=KT 0445 DO 601 K=KT 0446 BO 601 K=KT 0446 BO 601 K=KT 0447 BO 601 K=KT 0448 BO 601 K=KT 0448 BO 601 K=KT 0448 BO 601 K=KT 0449 BO 601 K=T		0416		F(X(K,1),6T-X(K,JMAX)) GD TD 720
0419 720 WRITE(6.750 0421 KWAX=KTEST- 0423 KWAX = KWAX 0423 KWAX = KWAX 0424 KAX = KWAX 0425 KWAX = KWAX 0425 F50 FORMAT(710X 0427 750 FORMAT(710X 0428 770 COMT INLE C C***********************************		0418	_	DATING
0420 720 WRITE(6.750 0421 KMAXIMEST- 0423 KMAXIMAXIMAXIMAXIMAXIMAXIMAXIMAXIMAXIMAXI		61 10	-	O TO 730
0421 KMAX=KTEST- 0422 KZX = KMAX 0423 KAX = KMAX 0424 KAX = KMAX 0425 TAX EXPANT(1)0X 0427 T30 CONT INJE 0428 T30 CONT INJE 0430 D0 600 J=2, 0430 D0 600 J=2, 0430 D0 600 J=2, 0431 IF(XIK,J-1) 0435 600 CONT INJE 0436 D0 601 K=KT 0437 601 JTE(K) = JT 0442 WRITE (6,45 0441 CMEAN,CAV 0442 WRITE (6,45 0443 J1 = JE(K) 0444 J1 = JE(K) 0446 KTEC = (XIK 0448 KTEC = (XIK 0450 WRITE(6,45) 0448 KTEC = (XIK 0448 KTEC = (XIK 0449 WRITE(6,45)		04 20	-	
0422		0421	*	MAX=KTEST-1
0423 KMAX1=KMAX 0424 FAX = KMAX = KMAX 0427 750 FURMAT(7)0X 1 1X, 18HKEEP 1 //10X, 6HKT 1 1/10X, 6HKT 1 1/10X, 6HKT 1 //10X, 6HKT 1 1/10X, 6HKT 1 1		0422	2	ZX II KMAX
0424		0423	*	MAX1=KMAX-1
0425 750 FURNAT(/10X 0428 17.710X,64MT 0428 730 CONT INLE C C***********************************		0424	*	AX = KMAX1
0427 750 FORMAT(/10X 0428 11X,18HWEEP 1 //10X,6HKT 0428 C C***********************************		97 70	•	F(KTEST-EO-KTIP) STOP
1 11x, 18HWEEP  1 // 10x, 64HKT  2 C		1240		DRMAT(/10x,19HETA GRID CLIPPED TO .
1 //10x,64MT  0428			-	1X,18HKEEP XI LINES FROM ,1X,19HCROSSING PAST TIP
C442B 730 CONTINUE  C C443444 COMPUTE  C C4434 DO 600 J=2,  0431 IF(X(K,J-1)  0435 600 CINTINUE  0436 DO 601 K=KT  0436 DO 601 K=KT  0436 DO 601 K=KT  0437 601 JTE(K) = JT  C DACAN, CAV  0442 WRITE (6,45)  0442 WRITE (6,46)  0443 DO 902 K =  0446 JE K • EQ.  0446 JE (K • EQ.  0446 XTEC = (X(K • EQ.  0451 YECK  0451 YECK  0451 ALEC, XTECC.			_	//10x,6HKTEST=,12,10X,5HKTIP=,12,10X,5HKMAX=,12/)
C*************************************	ISN	04.28	730 €	ONT INCE
C.************************************			U	
D0 600 K = 1, KTM1  D0 600 J=2,JMAXI  D0 600 K=KTIP,KMAX  D0 601 K=KTIP,KMAX  D0 601 K=KTIP,KMAX  D0 601 K=KTIP,KMAX  D0 601 JTE(KTM1)  D0 601 K=KTIP,KMAX  D0 601 JTE(KTM1)  D0 601 K=KTIP,KMAX  D0 601 JTE(KTM1)  D0 601 K=10 FT 910  WRITE (6,450)  WRITE			*****	COMPUTE
0430 0431 1F(X(K,J-1) * LE * XLEW(K) * AND * X(K,J) * GT * XLEW(K)) 0433 0433 1F(X(K,J-1) * LE * XTEW(K) * AND * X(K,J) * GT * XTEW(K)) 0435 0436 0436 0437 C 1F(YAW) GO TO 910 0440 WRITE (6,450) 0441 I CMEAN*CAV 0442 WRITE (6,451) SWPLE, SWPTED, CROOT, CTIP, SR 1 CMEAN*CAV 0443 DO 902 K = 1, KTM1 0444 JI = JLE(K) 0445 JZ = JTE(K) 0446 JZ = JTE(K) JZ = JTE(K) 0446 JZ = JTE(K) JZ = JTE(K) 0446 JZ = JTE(K) JZ		04.20		0 600 K = 1. FTM1
16 (X(K.s.)—1) **LE* XLEW(K) **AND* X(K.s.) **GT* XLEW(K)) 0435 0435 0436 0436 0436 0437 0437 0447 0447  17 (X(K.s.)—1) **LE* XTEW(K) **AND* X(K.s.) **GT* XTEW(K)) 0449 0440 0440 0441 17 (X(K.s.)—1) **LE* XTEW(K) **AND* X(K.s.) **GT* XTEW(K)) 0440 0441 18 (X(K.s.) **I* XIEK) 0442 0443 0444 19 09 02 K = 1, KTM 1 0444 11 = ALE(K) 0445 12 = JTE(K) 0446 13 = ALE(K) 0446 14 J1 = ALE(K) 0446 15 (X(K.s.) **J* XTEW(K) **XTEW(K) **XTEW(K) **XTEW(K) **CORDW(K) **XTEW(K) *		04.30		0 000 0
0433 IF(X(K,J-1) *(Le XTEW(K) *AND. X(K,J) *GT. XTEW(K)) 0435 600 CONTINUE 0436 DO 601 K=KTIP,KMAX 0437 C IF(YAW) GD TO 910 0440 WRITE (6,450) 0441 WRITE (6,451) SWPLE,SWPLED,SWPTED,CROOT,CTIP,SR 1 CMEAN,CAV 0442 WRITE (6,451) SWPLE,SWPLED,SWPTED,CROOT,CTIP,SR 1 CMEAN,CAV 0443 DO 902 K = 1,6KTM1 0444 J1 = JME(K) 0445 J2 = JTE(K) 0446 J2 = JTE(K) 0446 KLEC = (X(K,J)-XLEW(K))/CORDW(K) 0449 KTEC = (X(K,J)-XLEW(K))/CORDW(K) 0450 WRITE(6,461) K,YETA,ETA(K),XLEW(K),XTEW(K),CORDW(K), 0451 YETA = TA(K)/SSPAN 0452 J1 XLEC,XTEC,XLEWP(K),XTEW(K),XTEW(K),XTEW(K),LIP,XTEW(K),XTEW(K),LIP,XTEW(K),XTEW(K),LIP,XTEW(K),XTEW(K),LIP,XTEW(K),XTEW(K),XTEW(K),LIP,XTEW(K),XTEW(K),LIP,XTEW(K),XTEW(K),LIP,XTEW(K),XTEW(K),LIP,XTEW(K),LIP,XTEW(K),LIP,XTEW(K),LIP,XTEW(K),LIP,XTEW(K),XTEW(K),LIP,XTEW(K),L		0431	The state of the s	(X 0 1 - 1) alf xifu(K) and x(Kal) aft xifu(K)
0435 600 CDNTINE 0436 D0 601 K=KTIP,KMAX 0436 D0 601 K=KTIP,KMAX 0440 WRITE (6,450) 0441 CHEAN,CAV 0442 WRITE (6,451) SWPLE,SWPTED,CROOT,CTIP,SR 1 CHEAN,CAV 0443 D0 902 K = 1,KTM1 0445 J1 = JLE(K) 0445 J2 = JTE(K) 0446 KTEC = (K(K,JI)-KLEW(K))/CORDW(K) 0448 KTEC = (K(K,JI)-KLEW(K))/CORDW(K) 0450 WRITE(6,461) K,YETA,ETA(K),XTEW(K),CORDW(K), 0451 YETA=ETA(K)/SSPAN 0452 WRITE(6,461) K,YETA,ETA(K),XTEW(K),CORDW(K), 1 XLEC,XTEC,XLEWP(K),XTEW(K),XTEW(K),		04.33		AF XTEWIK) AND XIKAJ) AGT. XTEWIK)
0436 0437 0440 0441 0442 0443 0444 0445 0446 0446 0446 0446 0445 0446 0446		0435	-	Committee of the second
04.37 C 601 04.38 C 6440 04.41 I 604.42 04.43 04.44 04.45 04.45 04.45 04.45 04.45 04.45 04.45 04.45 04.45 04.45 04.45 04.45 04.45 04.45		0436	6	109
C 04.38 C 04.41 L 0 04.42 C 04.43 C 04.45 C 04		0437		
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0450 0451 0452 902		0440		THE R (MIN TO) -M FMIN ) CONDUCK)
0451 0452 902 1		0450	2	X= -21+1
0452 902		0451	The second	ETA = ETA(K) /SSPAN
1 ALEC, XTEC, XTEWP(K), XTEWP(K), K		0452		RITE(6,461) K.YETA.ETA(K).XLEW(K).XTEW(K).CORDW(K).J1.JZ.NX.
			•	XLEC,XTEC,XLEWP(K),XTEWP(K),K

FIXCY415 PARE DN30 PARE DN31

PARE DN27 FIXC 9414 PARE DN28

PARE DN26

PAREDN33 SETUP365 SETUP366

SETUP367 SETUPS68

PARE DN32

SETUP369 SETUP370 SETUP371

SETUP373 SETUP374 SETUP375 VAW 67 SETUP376

SETUPST2

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SETUPADI SETUPADZ SETUPA03

SETUPA04 SETUPA05

INPT X287

INPT X286 INPT X289 INPT X290 ABUNNY 42

WRITE (6.458) STRUE, APTRUE, SXPOS, CMAC, XLFMAC WRITE(6.455) DO 901 K=1, KMAX  YETA=ETA(K)/SSPAN  IF(K.=60,KROIT) WRITE(6.453) FF(K.=60,KROIT) WRITE(6.453) FF(K.=60,KROIT) WRITE(6.453) FF(K.=60,KROIT) WRITE(6.456) WRITE(6.457) K.YETA, ETA(K), XLE(K), XTE(K), XLED  IX(K.=JMAX), XIY(K,1), XIY(K,2)MAX), K  RETURN  CONT WR  CONT WR  CONT WR  CENTER = 0.50  PI=3.415.06.54  PI=3.415.06.54  PI=3.415.06.54  FOR MAT(IHIX/10X,1) THY AWED WING OPTION //10X, 6H  CENTER = 0.50  PI=3.415.06.54  ESTABLISH LIFT SPREADING FACTOR  AFACT=0.0  DO 300 L=1, LMAX  FOR MAT(IHI2, 0X, 38HRFERROCE TRAPEZOIDAL WING D  AHL Exp(-AFACTARA2)  TI=(1.0-T1)  T(L, J)=T14T2(L, J)/2, 0/P14AFACT1  ESTABLISH LIFT SCHORD, SX, 5HCHORD, SX, 5HHORD, SX, 5HHO	ABUNNY43 INPT X291	INPT X292	INDT X293	INPTX295	INPT X296	INDT X297	INPT X298	1		50 100					21					28 444		1			ı	AVA 80				YAW OA	SETUROB	FIXCHIE	FIXCYAIT	ABUNNES	ABUNNYA6	ABUNNET	ABUNNAB	FIXCHER	SETUPATS	SETURA 16	SETUPAIT	SETUMATE	INPT X299
	WRITE (6.458) STRUE, ARTRUE, SXPOS, CMAC, XLFMAC	WRITE(6,455)	DO 901 K=1,KMAX	IF(K-E0-KROOT) WRITE(6-453)	JF(K-60.KTJP) WRJTE(6.456)		1 X(K .JMAX) .XIY(K .1) .XIY(K .JMAX) .K				WOITE(6,920) SWEED		CENTER = 0.50	PI=3-141592654	ALF AFILIBO O SANGLE	CITETA OF TACAMETERS	The state of the s	ESTABLISH LIFT SPREADING FACTOR		AFACTION	DO 300 L=1 CLMAX	DO 300 J=1.JMAX	72(L.J)=ATAN2(-SORT(C11)*ZT(L)(XI(J)-CENTER))	RAD2=(XI(J)-CENTER)**?+C11*Z1(L)**?	RAD= SORT (RAD2)	T1=1 00	TIERDO-LIST TEDANOL	T1=(100-T1)	00 T(L, J)=T1*T2(L, J)/2.0/P1*AFACT1		0	FORMATCHILOX . 38HREFFERENCE TRADEZOIDAL WING DESCRIPTION	A HILLESONG XON HILLSONG XON TO SERVE	1 6X.4HT.E.,6X.4HROOT.6X.3HTIP, 7X.4HWING.6X.6HASPECT.4X.5HTAPER.	2 5x.4HWEAN.6X.7HAVERAGE/TX.5HSWEEP.5X.5HSWEEP.5X.8HSWEEP.5X.	3 SHSWEEP, SX , SHCHORD, SX , SHCHORD , SX, 4 HAREA , 6 X, 5 HRATIO, 5X , 5 HRATIO,		51 FORMAT(3x, 11F10.3)	52 FORMAT (//20x+44HF ING LEADING AND TRAILING EDGE COORDINATES	1 /5xeltke8xe3HETAe11Xe4HXLEWe11Xe4HXTEW)		FURMAT (4X,12,3F15,6)	455 FORMAT (1H1//20X,21HDETAILS OF XI MAPPING //29X,6HX 1=0.0.5X.
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	9453	1454	1455	1457	65 10	1946		-	7462	200	2465	9466	19467	9940	6940	24.73				22	474	27	9476	11	84.4	24	200	9463	1484			485						9486	184		9488	6840	200

SETUP

LEVEL 2.2 (SEPT 76)

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964 FURMATION, 64479 DISLEM NO. 23-WING WATERLINE NOT ON BODY.
ISN 0503 964 FORMATIVIVITOX, 6444F0BLEM NO. 23-WING WATERLINE NOT ON BODY. INFAILS402 IPUT CORRECT VALUE.///)

MOPTIONS IN EFFECT MANE (MAIN) (PPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

40PTIONS IN EFFECT+SOURCE EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

10692, SUBPROGRAM NAME = SETUP 504. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*

SAK BYTES OF CORE NOT USED

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RECKESTED OPTIONS OPT(2) NOMAP

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15N 0002	SUBROUTINE SETUPX						SETUPX	<b>A</b> 1.
	Cassass THIS SURROUTIN	E COMPUTES R	SURROUTINE COMPUTES RECTANGULAR COARSE EXTERIOR GRID AND	COARSE EXTER	TOR GRID	AND	SETURE	
	***** GEOMETRY	**********	************	***********	*******			•
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ISN 0003	COMMON / EXTER /	XIEX(30)	ETAX(20)	. ZTX(20)	. XINX (30)	• 60	EXTER	•
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	2	ETACX(20)	ETARX(20)	XMINX .	. XMAXX	•	EXTER	
		WAXX .	ZMAXX	- YMINX	. ZMINX	•	EXTER	
	A STATE OF THE PROPERTY OF THE PARTY OF THE	ZLW.X	ZPVLX	. ZCMZ	· AWIX	•	EXTER	•
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15N 0004	COMMON / INDEXX /	JMAXX .	KMAXX	- LMAXX	. KTMIX	•	INDE XX	
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	~	E.WNGLJX	LWNGLX	. MAXXI	. KMAXXI	•	INDE XX	
	3	LMAXX1	KROOTX	× Id.			INDE XX	•
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15N 0006	LOGICAL	101SK	ISAVE	. IPLOT	. MSHINT		COMP IX	
		SULV .	WBCPRT	. BBCPRT	· BODY	•	COMP TX	10
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	2	TRODIN	AXISAM .	. AREA	. IBLOUT		COMP IX	•
15N 0007	COMMON / NESHX /	DXC	DXT	• DXMX	¥ .	•	BMSEX .	-
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15N 0008	COMMON / RODVI /	XNOSE	. XTAIL	. NBTN(2)	. XBIN(2,35)	.35)	NUON '	Q:
	-	NBMDS	JBUP(2)	. Jahniz	. JNDSE		BODY	
	2	STAIL .	ALPHAB	. NBPTS(90)	. R(90)		BODY	
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	S.	CFL(15)	. ABL(15)	. BBL(15)	, CBL(15)		BODY	
	•	ACL(2)	, BCL(2)	. CCL(2)	. BTYPE	•	BUDY	
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15N 0009	COMMUN / BODY2 /	FX (30.90)	FY (30,90)	. FZ (30,90)			COMF 1X23	
	-	KBCD (30,90)		. LBU(20.90).	. LAD(20,90)	. 100.	COMF 1X24	
	2	NBPTSX (30).	LB00(30,90)				COMF 1X25	2
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		FYX( 20 .30 ).	(PS(20,90)	The sealth made	No specifical		COMF 1X27	

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0034 C KI = 0035 D0 10 D0	1 5 N=2.NTE1 K1 T K = K1.KMAXX KK + 1 ETAX(K) FLIN(XTE1(N-1),XTE1(N),YB.YTE1(N-1),YTE1(N)) B.GT.YTE1(N) GD TD 108 (K) = XB KK - 1	SETUPKB3 SETUPKB4 IMPTX321 SETUPK94 SETUPK94
0034 KI = 0035 DO 10 10 10 10 10 10 10 10 10 10 10 10 10	1 5 N=2.NTE] K1 KK + 1 ETAK(K) FLIM(XTE](N-1),XTE](N),VB,VTE](N-1),VTE](N)) B.GT.VTE](N)) GD TD 208 (K) = XB KK - 1	SETUPX84 INPTX321 SETUPX93 SETUPX94 SETUPX95
0035	5 N=2.NTE!  K1  T K = K1.KMAXX  T K = K1.KMAXX  FLIK + 1  FLIM(XTE!(N-1).XTE!(N).VB.VTE!(N-1).VTE!(N)  B.GT.YTE!(N) GD TD 108  KK - 1  KK - 1	INPTX321 SETUPX93 SETUPX94 SETUPX95
0036 KK = 0039 KK = 0039 KK = 0041	K1 T K = KI, KMAXX KK + 1 ETAK(K) FLIN(XTEI(N-1), XTEI(N), VB, VTEI(N-1), VTEI(N)) B, GT, VTEI(N)) GD TD 108 (K) = XB (K) = XB	SETUPX93 SETUPX94 SETUPX95
0036 KK = 0040 WB = 0040 WB = 0040 WB = 0040 WB = 0044 WB = 0044 WB = 0044 WB = 0046 WB = 046 W	7 K = K1.KMAXX KK + 1 ETAK(K) FLIM(XTEI(N-1),XTEI(N),YB.YTEI(N-1),YTEI(N)) B.GT.YTEI(N)) GD TD 108 (K) = XB KK - 1	SETUPX94 SETUPX95
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	IKRS.CT.23 GO TO 60	EAT! SAT!
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		CACA TAN

	6900	LWNGLX = LWNGUX - 1 KTMIX = KTIPX - 1	INPTX348 INPTX349
FF:407.7487 GG TO 34   PI=3.141592664   AAKATA'LA'AB) GG TO 34   AFACTI-0.00   AAKATA'CA'BO TO 34   AFACTI-0.00   AAKATA'CA'BO TO 34   AFACTI-0.00   AAKATA'CA'BO TO 34   AFACTI-0.00   AAKATA'CA'BO TO 300 L=1.LWAXX   AACAGRAGARA'CA'BA'CA'CA'CA'CA'CA'CA'CA'CA'CA'CA'CA'CA'CA	04 00		INPTX350
PARACTIO.00  RACTIO.00  RACTIO.00  RACTIO.00  CENTEPO.5  CENTEPO.5  CESTABLISH LIFT SPREADING FACTOR  CONTROLS.1-JMAXX  DO 300 L=1.LWAXX  PADC=SRETIRAD2  TI=1.0  TI=1	17 00	0 10	
### ##################################	0073	PI=3.141592654	
CENTERED.S  CENTERED.S  CITESORTIIO - MACPHODES  CONTRICAL - SPREADING FACTOR  CONTRICAL - SPREADING FACTOR  CONTRICAL - SPREADING FACTOR  CONTRICAL - SPREADING FACTOR  TO 300 L=1.MMXX  TO 1.JJATAN2(-SORTCI)-ZTX(L)(XIEX(J)-CENTER))  YAW  TO 300 L=1.JMXX  TO 1.JJATAN2(-SORTCI)-ZTX(L)(XIEX(J)-CENTER))  TO 300 L=1.JMXX  TO 1.JJATAN2(-SORTCI)-ZTX(L)(XIEX(J)-CENTER))  TO 300 L=1.JMXX  TO 300 L	0074	AFACT1=0.00	
CITESORTISH LIFT SPREADING FACTOR  CON 300 L=1.MAXX  DO 300 L=1.MAXX  DO 300 L=1.MAXX  PAD=SORTISH LIFT SPREADING FACTOR  CON 300 L=1.MAXX  PAD=SORTISH LIFT SPREADING FACTOR  Tite (a.) = A.MAXI  300 T(L., J) = T1 = 0. S*(1.0 - COS(DIPBAD))  T1=(1.0 - T1)  T1=(1	200		
C ESTABLISH LIFT SPREADING FACTOR  C C C C C C C C C C C C C C C C C C C	24 00	C11=SQRT(1.0-MACHND##2)	
C ESTABLISH LIFT SPREADING FACTOR  C 300 J=1.LMAXX  D0 300 L=1.LMAXX  D0 300 J=1.LMAXX  D0 300 J=1.LMAXX  FILE (1.)=ATAZESCRFT(E11)*ZTX(L.)-(XIEX(J.)-CENTER))  PAD2=(XIEX(J.)-CENTER)*Z*Z*CII*Z*TX(L.)*Z*Z*CII*Z*TX(L.)*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z*Z			
DO 300 L=1.LWAXX		ESTABLISH LIFT	
DO 300 L=1.LMAXX			
DO 300 -11. JMAXX   VAN   VAN	84 00	NO 300 L=1.LMAXX	
PADE=SQRT(RAD2)	64 00	DO 300 J=1, JMAXX	
0081 PADS=EXPT(EAD2)  7 12-1.00	0080	72(L.,)=ATAN2(-SORT(C11)*ZTX(L),-(XIEX(J)-CENTER))	
PAGE SOFT(RAD2)	0081	RAD 2=(XIEX(J)-CENTER) **2+C11*Z1X(L) **2	
	0082	PAD= SQRT (PAD2)	
DOGS	0083	T1=1.0	
0000 71=(1.0-71) 0000 71=(1.0-71) 0000 31 CONTINUE C 30 T(L.J)=TIFT2(L.J)/2.0/P14AFACT1 0000 34 CONTINUE C 75 (1.0-71) 0000 7	90084	1F(RAD-LT-1-0) T1=0.5*(1.0-COS(PI*RAD))	
0000 TI=(11-0-11) 0000	9800	VI=EXP(-AFACT*BADZ)	
315 CUNTINUE  34 CONTINUE  35 CONTINUE  C. C	20087	The state of	
0090 C 34 CONTINUE  C 34 CONTINUE  C 34 CONTINUE  C 15 (MODUTE BODY INDIGES ************************************	9900		
19090   34 CONTINUE   1907	6800	315	
C TE (HODY) CALL GFORDX  THE (HODY) CALL GFORDX  THE (HODY) CALL GFORDX  C THE (HODY)  C THE (HODY) CALL GFORDX  C THE (HODY)  C THE (HODY	06 00	34	
CESTIFICATION TO THE GOODY INDIGES ************************************			-
C IF (HODY) CALL GFORDX  C CAMERTE COMPUTE JLEX(K) AND JTEX(K) ************************************		***** CIMPUTE BODY INDICES	
			INPTXB53
C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	1600	1F	INPTX354
C DO 110 K = 1.KTMIX  0094  1 JEXIK(J-1).LE.XLEWX(K).AND.XINX(J).GT.XLEWX(K))  1 JEXIK(J = J-1).LE.XTEWX(K).AND.XINX(J).GT.XTEWX(K))  1 JEXIK(S) = J-1  0097  1 JEXIK(J = J-1)  1 JEXIK(S) = J-1  0099  110 CONTINUE  DO 111 K = KTIPX.KMAXX  0100  C C		THE COMPLETE	
0093 DO 110 K = 1.KTM1X 0094 DO 110 J = 2.JMAXX1 0095 I J (		2000	
0094 DO 110 J = 2.JMAXX1 0095 JF (XINK(J-1).LE.XLEWX(K).AND.XINX(J).GT.XLEWX(K)) 1 JCX(K) = J 0097 JF (XINK(J-1).LE.XTEWX(K).AND.XINX(J).GT.XTEWX(K)) 1 JFX(K) = J-1 0099 110 CONTINUE 0100 DO 111 K = KTIPX.KMAXX 0100 DO 111 K = KTIPX.KMAXX 0101 C C. C	0003	110 K =	SETUPIOS
1 JEX(K) = J 0097 1 JEX(K) = J 0097 1 JEX(K) = J 0097 1 JEX(K) = J-1 0099 110 CONTINUE 0100 0101 C C= C= CONTINUE 0101 C C= CONTINUE C CONTINUE C C C= CONTINUE C C C CONTINUE C C C C C C C C C C C C C C C C C C C	9600		SETUPIOS
1 JLEX(K) = J  0097	9600		CHORD 23
1 JTEXIX (J-1).LE.XTEWX(K).AND.XINX(J).GT.XTEWX(K))  1 JTEXIX) = J-1  0009 110 CONTINUE  0100 111 JTEXIX) = JTEXIX MAXX  0101  C C*****************************		1 JCX(K) = J	SFTUPIOR
1 JTEX(K) = J-1  0099 110 CONTINUE  0100	1600	IF (XINX(J-1).LE.XTEWX(K).AND.XINX(J).GT.XTEWX(K))	CHORD 24
0099 110 CONTINUE 0100		STEX(K) =	SETUPITO
0100	6600		SETUPIII
0101 111 JTEXEK) = JTEXEKTMIX)  C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	0100		SETUPITE
C C C C C C C C C C C C C C C C C C C	1010	STEXEK) =	SETUPITS
C			
0102 DO 116 J = 1,JMAXX 0103 116 XX(J) = XINX(J) C C C C C C C C C C C C C C C C C C C			*
0103	0000	***	SETUBLIA
C C C C C C C C C C C C C C C C C C C	2010		SETUDITION
C******* PRINT GRID COMPUTATION RESULTS ************************************	5010	10100 011	SETUPLIE
0104 WRITE(6,472) 0105 NMAX = MAXO(JMAXX,KMAXX,LMAXX)		C****** DRINT GRID COMPUTATION RESULTS **********	*
0104 WRITE(6,472) 0105 NMAX = MAXO(JMAXX,KMAXX,LMAXX)			
0105 NMAX = MAXO ( JMAXX + KMAXX + LMAXX )	0104		SETUP122
	0105		

C 902 WRITE(6,461) K,ETAX(K),JLEX(K),JTEX(K),XLEWX(K),XTEWX(K)
460 FORMAT(//20X,59H.J INDEX OF LEADING AND TRAILING EDGE POINTS AND ILDCATIONS/5X,1HK,8X,4HETAX,7X,4HJLEX,2X,4HJTEX,6X,5HXLEWX,6X,12,5HX,6X,2X,4HJTEX,6X,5HXLEWX,6X,4E1 FORMAT(4X,12,F15,6,4X,12,4X,12,2F14,6) 421 FORMAT(4X,12,F15,6,4X,12,4X,12,2F14,6) 422 FORMAT(4X,12,F15,6,4X,12,4X,12,2F14,6) 1 20H CRUDE EXTERIOR GRID //5X,1HN,11X,4HXIEX,7X, 1 4HETAX,7X,3HZTX) 473 FORMAT(1X,15,5X,3F11,5) 967 FORMAT(1X,15,5X,3F11,5) 968 FORMAT(1X,15,5X,3F11,5) 968 FORMAT(1X,10X,78HFROBLEM NO, 35-THERE ARE LESS THAN 2 Y CRUDE IRID MESH POINTS ON WING AT SPAN STATION,13///) PETURN

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 2958, SURPROGRAM NAME =SETUPX 130. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT I STICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

132K BYTES OF COPF NOT USED

RE OLE STED OPTIONS OPT(2) . NOMAP

	M FLAG(1) DUMP
	DURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
UTODBL(NONE)	T GOSTMT NOXREF
NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)	NOMAP NOFORMAT
LINECOUNT ( 55	NODECK OBJECT
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TIONS IN EFFECT	

15N 0002	2005		SUBROUT	SUBROUTINE GEOMB	23								•	GEOMB	2 1
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		C		UTE R.F	H.X	FZ	*	1	*	****	***	********		GEOMB	8
		v											Č	GEOMB	9
15N 0003	1003		COMMON /	/ INTER		X1(90)		ETA(30)		27(20)		(06)NIX		INTER	2
		-				XIE(90)		XIC(90)		XIR(90)		ETAL(30)		INTER	2
		2				ETAC (30)		ETAR(30)		COEU		COEL		INTER	*
		F)				ZCW	•	מית		ZRVL		ZCM		INTER	
						POUM (30)		EDUM(30)		XMIN		XMAX		INTER	
		w)				YMAX		ZMAX		YMIN		MIN		INTER	1
		•				ZW		ZRWJ						INTER	
15N 0004	*000		COMMON	/ INDEX	-	SMAX		KMAX		LMAX		KTM1		INDEX	2
		-				KTIP		KTIPI		JWLE		JE (30)		THOEX	
		12	•			SWIE		JTE(30)		LWING		LWINGU		THOEX	
		r)				JMAX 1		KMAX1		LMAXI		KROOT		COMP IX	
		•				105								INDEX	9
15N 0005	2000		COMMON	COMMON / RODVI	-	XNOSE		XTAIL		NB IN(2)		XBIN(2,35)		BODA	2
		-				NBODS		JBUP(2)		JBDN (2)		SON		BODY	2
		14				STAIL		ALPHAB		NBPT S(90)		R( 90 )		BODY	
		F1				KBMX (90)		LMN		LMX		#K(15)		BOOV	8
						BFK(15)		CFK(15)		AFL( 15)		BFL(15)		BODY	9
		<b>(</b> )				CFL(15)		ABL(15)		881(15)		CBL(15)		MODA	1
		•	•			ACE(2)		BCL(2)		(2)700	•	BTYPE		AGOR	•
		-				XPBU(90)		XRBL (90)		DZRBU(90)		DZRBL (90)		CHEN 1	-
		•				NRRU	•	NRRL		YRB	•	2880		RODY 1	c
		5	^			ZPRFL		KRWXX (30)		JNOSEX		STAILX		RODV 1	1.1
						RB IN (2,35)	:	XNOSEX		XTAILX		YOB	-	FIXCYA	-
15N 0006	9000		COMMON	COMMON / BODY2		FX (30 . 90)		FY (30,90)		FZ (30.90)				COMF TX23	9
						KBCD(30,90)	10			LBU( 20.90).		LBD(20.90).		COMF 1X24	
		N				NBPTSX(30).		LBOD(30,90)					•	COMF IX25	5
		r,				LBUX (20,30)	60			LBDX (20 + 30)	6			COMF IX26	9
		•				FYX(20,30)		CPS(20,90)					•	COMF TX27	1
15N 0007	7000		COMMON	/ B0DV3	`	KBMAX		KBMAXX		LLBL		LL BU		80 VOO8	
		-				LLBLX	•	LEBUX		RBCU (30.90)	6			COMF 1X29	0
		N	•			KBS		RBCL (30,90)	-		•		_	COMF TX30	0
		r)				RBCUX (20 +30	30)			RBCLX(20,30)	30 )			COMF IX31	-
		•				DRBCO		DRBCL		DRBCUX		DRBCLX		COMP TX32	2
		<b>u</b> )	15			SALPH(90)		SALPHX (30)					•	COMF 1X33	
15N 0008	90 00		COMMON	COMMON / BODYBC	10	1800		IBLD		1851DE		ETABU(10)		COMP IX34	•
		-				ETABL(10)	•	ZB00(20)		NRBS	•	XRBS(100)	•	COMP IX3	5
1SN 0009	6000		COMMON /	/ FLAGS		IDISK	•	ISAVE		IPLOT		MSHINT		FLAGS	~
						SOLV	•	WBCPRT		BBCPRT		BODY		FLAGS	•
		N				FCR	•	ISPAN		IF INR		ICRUDA		INPTX	
		r,				EXTMSH	•	REMESH		IMAPR		YAW		THPTX	~
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		- (	SOLV	. WBCPRT	BBCPRT	· BODY	COMPTX 5	
		N (	FCR	. ISPAN	. IF INK	. ICRUDE	· COMP IX 6	
			EXTMSH	. REMESH	. IMAPR	. AVA	· COMP IX 7	
			IBUND	· IVISC	. ITWIST	. IFOILT	· COMPIX &	
		n	MIGORI	. AXISYM	. AREA	· IBLOUT	COMP IX 9	
	U						GEOMB 11	
		DIMENSION XPP(90), RS(90), FXS(90)	1. RS(90) .F	(06)SX			FIXUP 2	
15N 00 12		DIMENSION XBT(35	),RBT(35)				GEOMB 13	
	U						GEOMB 14	
	v						GEOMB 15	
ISN 0013		AUF AB = .0174532	.017453293*ALPHAB					
	v						GEOMB 17	
		DO 1 J = 1. JMAX					GEOMB 18	
ISN 0015		KBMX(J) = 0					GEOMB 19	
15N 00 16		1 7(3) = 0.0					GEOWB 21	
15N 00 17		IF ( JNDSE .EQ. 1	1 ) GO TO 20	50			GEOMB 22	
15N 0019		J2 = JNDSE-1					GEOMB 23	
ISN 0020		DO 21 J =2, J2					GEOMB 24	
15N 0021		MBPTS(3) = 2					GEOMB 25	
ISN 0022		KB0011.J) = 1					GEOMB 26	
		KB00(2.J) = 1					GEOWR 27	
		LBOD(1.J) = LWINGU	25				GEOMB 28	
	1.0							
		TE ( MAT!	FO. MAX 1 GO	GO TO 22				
		TAT!		1				
		24 4 2						
			A CHANGE COM					
		' '						
		=						
			25				13	
		LBOD (2.3) = LWINGL	4				GEOMR 39	
15N 0037	23	CONT PNUE					GEOMR 40	
1SN 0038	22	CONT INUE					GEOMB 41	
1SN 0039		DO 110 M=1.NBODS					GEOMR 42	
	v						GEOMB 43	
15N 00 40		31= JBUP(M)					GEOWR AA	
		J2= JBON(M)					GEOMB 45	
	U						GEOWB 46	
15N 0042		M2=NBIN(M)					GEOWR 67	
		DO 111 MI=1 .M2					GEOWB 48	
		XBT (M1)=XBIN(M.M1)					GETIMB 49	
	1111						GEOMP 50	
			The State of the S				GEOWR 51	
	U							
15N 0047	,	0 = XN						
		0					CECKB SA	
		5	-XNNS-				GEOWR SA	
			-				GEOWR 57	
15M 0051	,	CALL ST (BY ( XRT, BRT, NT, XPD, NX, BS, FXS)	T. MT. XPD.	NX.BS.FXS1				
	,						ï	

GEOMBIEO

603 FDRMAT ( /10X, 6HKBMX= .12 / 10X, 9HK, LBU, LBD )

604 FURMAT ( 3110 )

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(SEPT 76)
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                                                                                     IF ( KBMX(J) .GT. KROOT ) KROOT = KBMX(J)
IF ( LBCD(11.J) .GT. LMX ) LMX = LBCD(11.J)
IF ( LBCD(N1.J) .LT. LMN ) LMN = LBCD(N1.J)
                 C****** EXTRAPOLATION COFFFICIENTS
                                                                                                                                      DKP1 = ETA(K+1) - ETA(K)

DKP2 = ETA(K+2) - ETA(K+1)
                                                                                                                                                                                                                                                                               AFL(1) = -8FL(1) - CFL(1)
                                                                                                                                                                   (FK(K) = -0KP1/(DKP2*DK)
BFK(K) = DK/(DKP1*DKP2)
                                                                                                                                                                                                                                                           GFL(1) = -0LP1/(DLP2*0L)
BFL(1) = DL/(DLP1*DLP2)
                                                                                                                                                                                                                                                                                                                                                                                                                                 ACL(1) = -CLP1/(DLM1 #DL)
                                                                                                                                                                                                                                         PLP2 = ZT(L+2) - ZT(L+1)
                                                                                                                                                                                                                                                                                                                               DLM2 = ZT(L-1) - ZT(L-2)
                                                                                                                                                                                                                                                                                                                                                            BBL(1) = -0L/(DLM1*DLM2)
ABL(1) = -8BL(1)-CBL(1)
                                                                                                                                                                                                                                                                                                                                                                                                                                          CCL(1) = DLM1/(DLP1+DL)
                                                                                                                                                                                       AFK(K) = -BFK(K)-CFK(K)
                                                                                                                                                                                                                                                                                                                                                   CBL(1) = DLM1/(DLM2*PL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     BCL(1) = ACL(1)-CQL(1)
                                                                                                                                                          DK = ETA(K+2) - ETA(K)
                                                                                                                                                                                                                                                                                                                                                                                                  = ZT(L) - ZT(L-1)
                                                                                                                                                                                                                              DLP1 = 27(L+1) - 27(L)
                                                                                                                                                                                                                                                                                                                      DEM1 = 27(L) - 27(L-1)
                                                                                                                                                                                                                                                                                                                                                                                                                       OI. = 27(L+1) - 27(L-1)
                                                                  DO 100 J = JNOSE . JTAIL
                                                                                                                                                                                                                                                                                                                                                                                                              DLP 1 = 27(L+1) - 27(L)
                                                                                                                                                                                                           DO 102 L = LWINGUALMX
                                                                                                                                                                                                                                                                                                   DO 103 L = LMN.LWINGE
                                                                                                                                                                                                                                                  M = 27(L+2) - 27(L)
                                                                                                                                                                                                                                                                                                                                        ML = 27(L) - 27(L-2)
                                                                                                                             DO 101 K = 2.KRDOT
                                                                                                                                                                                                                                                                                                                                                                                         DO 104 1 = 1.2
DLM1 = ZT(L) -
                                                                            NI = NBPTS(J)
                                                         - LMAX
                                                                                                                                                                                                                                                                                                                                                                                L = LWINGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                              L = LWINGU
                                                                                                                                                                                                                                                                                                              1 = 1 + 1
                                      KROOT = 0
                                                                                                                    CONT INCE
CONT INE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RETURN
                                                                                                                                                                                                                     1=1+1
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1SN 0105
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HOPTIONS IN EFFECT HUMBE(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOOBL(NONE)

ADPTIONS IN EFFECT+SOURCE EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP DATE 77.295/15.21.34 SOURCE STATEMENTS = 152, PROGRAM SIZE = 4424, SUBPROGRAM NAME = GEOMB DS/360 FORTRAN H EXTENDED \*STATISTICS NO DIAGNOSTICS GENERATED GEOMB LEVEL 2.2 (SEPT 76) \*STAT I STICS \*

PAGE

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132K BYTES OF CORE NOT USED

54

REGUESTED OPTIONS OPTED . NOMAP

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NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBL (NONE
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NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBL(NONE) SOUNCE EBCDIC NOLIST MODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP		******* RECTANGULAR BNDY ************************************	Cassade Compute BODY MESH POINTS, HODY SLOPES ************************************		. XIN(90)	. ETAL (30)	· COEL	25.00
PTIONS IN EFFECT NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOUNCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTWT NOXE		***********	******		. ZT(20)	. XIR(90)	· COEU	
T(56) SIZE(M		***********	RODY SLOPES		. ETA(30)	. XIC(90)	. ETAR(30)	7014
2) LINECOUNT		DY *******	ESH POINTS.			X1L(90)	ETAC (30)	20.00
OPTIMIZE (	UTINE GEOMBR	ANGULAR BO	UTE BODY M		COMMON / INTER / X1(90)			
NAME (MAIN) SOURCE ERC	SUBROUT	****** RECT	****** COMP		COMMON	1	2	
N EFFECT	02	. 8	*	·	03			
TIONS 1	15N 0002				ISN 0003			

		-											
ISN 0003	COMMON	INTER /	(06) LX	•	ETA(30)		ZT(20)		(06)NIX		INTER	2	
			X1L(90)	•	XIC(90)		XIR(90)		ETAL (30)		INTER	3	
	2		ETAC (30)	•	ETAR (30)		COEU		COEL	-	INTER		
	3		ZCMI	•	Z.M.		ZRVL		ZC NL	-	NTER		
	•		POUM (30)	•	EDUM(30)		NIMX		MAX	-	NTER	9	
	9		WAX	•	ZMAX		MIN		NIM	-	NTER		
	. 9		ZLW	•	ZRWI					-	INTER		
*0	COMMON !	INDEX /	JMAX	•	KMAX		LMAX		CTM1	-	NDEX	2	
	1 St. 1 E.S.		KTJP	•	KTIPI		JALE		ALE (30)	-	NDEX	3	
	2		JWTE	•	JTE(30)		LWING	-	MINGO	-	NDEX	•	
	3		JMAX1	•	KMAX1		LMAXI		KROOT		OMF IX	1	
	* Chi Chi		Tas							-	NDEX	9	
90	COMMON	/ BODY1 /	XNOSE	•	XTAIL		NB IN (2)		KBIN(2,35)		100	2	
	1 30 8 Cm S		SCHOOL	•	JBUP(2)		JBDN(2)		NOSE		AQUE	3	
	2		JIAIL	•	ALPHAB	•	NBPTS(90)		4(06)		100	•	
	3		KBMX(90)	•	LMN	•	CMX		FK(15)		100	2	
			BFK(15)	•	CFK(15)	•	AFL(15)		FL(15)		100	9	
	S		CFL(15)	•	ARL(15)	•	BBL(15)		CBL(15)		Agos	1	
	9		ACLIZI	•	BCL(2)	•	CCL(2)		STYPE		AOU		
	1		XRBU(90)	•	XRBL(90)		DZRBU(90)	-	3ZRBL (90)		HEN !	1	
			NRBU	•	NRBL	•	YRB		ZRBU		I AGO!	c	
	•		ZREEL	•	KBMXX (30)	•	JNOSEX		JAILX		ושטי ז		
	•		RB IN (2 .3	51.	XNOSEX	•	XTATLX		rob	•	TXCVA	1	
90	COMMON	/ BODV2 /	FX (30,90		FY (30,90)	•	FZ (30 .90)				DMF 1X2	3	
			KB00130.	106		•	LBU( 20.90)		LBD(20.90)		TOME IXE		
	2		NBPTSX (3	.10	LB00 (30,90	-	大学の名 75 mm			٠	OMF IX2	2	
	3		LRUK(20.	30)			LBDX (20 + 30	-			DMF IX2	•	
			FYX(20.3		@S(20,90)					٠	CMF 1X2	1	
40	COMMON	RODAS /	KBMAX	•	KBMAXX	•			TER		1 4001		
			LALX	•	LLRUX		RBCU (30 . 90	_			OMF IX2	6	
	2		KBS	•	RBCL (30,90	-				٥	CMF PX3		
	B		RBCUX (20	•30			RBCLX(20 +3	6			COMF IX3	1	
	•		DRBCO	•	DRBCL	•	DRBCUX		DRBCLX		CMF TX3	2	
	5		SALPH( 90		SALPHX (30)					٠	DMF 1X3		
90	COMMON	BODYBC	/ 18co	•	IBLD	•	IBSIDE		ETABU(10)		OMF 1X3		
	-		ETABL(10		ZB00(20)		NRBS		KRBS (100)	٠	OMF BX3		
60	COMMON	FLAGS /	TOTSK	•	ISAVE	•	1PLOT		MSHINT		LAGS	2	
	1		SOLV	•	MBCPRT	•	BBCPRT	-	SODY		LAGS	3	
	2		FCR	•	ISPAN	•	IF INR		ICRUDA	-	NPTX	1	
	3		EXTMSH		REMESH	•	IMAPR		KAN	-	NPTX		
	•		INUMP	•	IVISC	•	ITWIST		FOILT		NPTX		
	0		IROD IN	•	AXISAM	•	AREA		IBLOUT	-	MPTX		
10	LDGICAL		TOTSK	•	ISAVE		1PLOT		4SHINT	•	OME IX		
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	m	EXTMSH	. REMESH	•	IMAPR		. AAA	COMF IX 4
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	10	IBIDIN	. AXISYM		AREA		IBLOUT	COMF IX 9
U								GEOMBP 11
ISN 0011	COMMON ALEVIX	DX13(90)	. DXL(90)		(DE) MIDX		XDUM2(90) .	LEVIX 2
	-	XDUM3( 90 )	. XDUM4 (90)	•	XDUM5(90)			LEVIX 3
		XPUM6 (2000)						LEVIX 4
15N 0012	COMMON / WING /	YPOOT	. XLER		KTER		WIP .	WING 2
		XIET	. XTFT		SPEE		SWEED	INPTX 7
	S SHAREN CODAGE S	N. F.	. WET(10)		XLE1(10)		STRUE .	INPTX 8
		NTE	. YTE1(10)		XTE1(10)		SXPOS	INDTX 9
		Thoras	SSPAN		THICKLILL		ZWINGWI	PNPTX 10
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								GEOMBR15
0013	u							GEOMBRIG
0014	XTAIL = XIN(JMAX)							GEOMBR 17
9100	JNOSE = 1							GEOM RR 18
0016	STAIL = JMAX							GEOWRAP
1100	0							CHEN2 1
9100	DO 300 J=1. JMAX							PAPE MY
000								DADFINITE
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00.20	- 7 -							OC CIM DACO
0021	JF (15ET .EO. 1) GO TO 3	60 10 3						GEOMBR21
0023	IF (ZT(L) .LE. ZPBL) GO	10	3					GEOMBR22
0025	LLBL = L - 1							GEOM BP 23
0026	1SFT = 1							GE THIRD 24
2000	*****	, or 02 (11907 T)	•					CECAMOS
17	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							OCCUMENTS:
6200	LLBU = L							GEOM MASS
00 30	1 01 03							GEOM BP 27
0031	2 CONTINKE							GEOMBASE
0032	1 DO 4 K = 2.KMAX							GEOM BP 29
0033	IF (ETA(K) .LT. Y	VRB) GO TO						GEOM BR30
0035	KBS = K							GEOM BR31
AE 00	50 70 6							GEOWRIDE
22.00	A CONT INE							CEOMBORS
00.38								CEOM BO 34
3 6								
96 00	KUMAX = KBS							
								GE CIM BID 35

EVEL	2.2	(SEPT 7	163	GEOMBR DS/360 FORTRAN H EXTENDED D	DATE 77.295/15.22.07	
ISN	0041			KROOT = KBS	GEOMBR37	
ISN				DO 5 J = 1.JMAX	GEOMBRES	
ISN				KBMX(J) = KBS	GEOW RR 39	
ISN				Stan = (r)Stan	GEOMBRAO	
NU					GEOMBP 41	
ISN					GEOMPP 42	
ISN				6.5	GFOM FRA3	
ISN			0		GFOW PRA4	
ISN	0049			78SIDE=LLBU-LLBL+1	F1XCV421	
					QUICK 1	
		U		ESTABLISH GRID SLOPES FOR SIMPLE BODY INPUT	OUICK 2	
		U			OUICK 3	
ISN	0000			IF (IBODIN) CALL QUIK	OUTCK 4	
		U			OUICK 5	
ISN				JF(.NOT.BBCPRT) GO TO 13	ABUNNYS3	
ISN	900			PRITE(6,600) KROOT, LLBL, LLBU, NPTS	ABUNNYSA	
ISN			13	CONT INLE	ABUNNYSS	
		v			GEOWBR51	
			***	***** INTERPOLATE FOR UPPER AND LOWER RODY SLOPES **********	***GFOWFR52	
					GEOMBR53	
		•	**		CHEN 1 33	
			*	TO INTERPOLATE BODY BOUNDARY CONDITIONS	CHEN 3 34	
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ISN	0000		20	Y		
				15. M. KK = .15)	34	
ISK				STOP		
ISN			9	CONTINUE	CHENI 49	
ISN				DO 70 JE1.NRBU		
ISN			-	DXU(J) = RBCU(20+KK.J)		
ISN			2	CONTINE		
ISN				GO TO 80	CHEN I 53	
ISN			20	CONTINUE		
ISK				DOM = ETABU(KK+1)-ETABU(KK)		
ISN						
ISN						
ISN				DO 90 JEL NRBU		
ISK				DXU(J) = COE1*RBCU(20+KK+J)+COE2*RBCU(20+KK+1+J)		
ISN			8	CONT INJE	2	
ISN			8	CONT INCE	CHEN 1 61	
ISN					CHEN1 62	
ISN	061			F (ETA(K) -EO-ETABL(KK)) GO TO 1010		
ISN	0083			IF (ETA(K).GT.ETABL(KK).AND.ETA(K).LT.ETABL(KK+1))		
				<b>60 TO 1020</b>	CHEN 1 65	

CHENI SLOPY! XRBL . DXL . NRBL . X IN. JMAX . XDUM3. XDUM4) WRITE(6,358) J.XINIJ) (RRCUIK, J) K=KSTRT KEND) WRITE(6,358) J.XIN(J), (RBCL(K,J),K=KSTRT,KEND) CALL SLOPY! XRBU DXU , NRBU , XIN , JMAX , XDUM , XRUM2) ? FORMAT(4X,1HJ,5X,3HX/C,3X,2HK=,14,10110) 353 FORMAT(141/20X,20HLOWER SURFACE RBCL S 354 FORMAT(4X,1HJ,5X,3HX/C,3X,2HK=,14,10110) 355 FORMAT(4X,1HJ,5X,3HX/C,3X,2HL=,14,10110) FORMAT (/11x . THETA(K)=,F7 .5.10F10.5/) FORMAT ( /20X , 20HIPPER SURFACE RBCU S WRITE(6,356) (ETA(K), K=KSTRT, KEND) WRITE(6,354) (K, K=KSTRT, KEND) WRITE(6,356) (ETA(K) # = KSTRT+KEND) WRITE(6,354) (K+K=KSTRT+KEND)

IF (KEND.GT.KB) KEND=KB

00 312 J=1. JMAX

0128 0129

ISN

0130 0131 0132 0133 0134 0135

ISN ISN ISN

0127

ISN

SN

CONT INCE

352

ISN

KSTRT=(KKK-1)\*10+1

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ISN ISN

0121

SN

KEND=KSTRT+9

DO 312 KKK=1 ,KIJMX

WRITE(6,353)

310

DO 310 J=1. JMAX

ABUNNYSB ABUNNAGO ABUNNY 62 ABUNNY63 ABUNNW64 ABUNNYAS ABUNNYES ABUNNAF67 ABUNNYES ABUNNAF69 ABUNNATO

ABUNNYET

CHENI 95 ABUNNASA ABUN NYS7 RUNNINGO

IF(.NOT.BBCPRT) GO TO 366

KUMX=(KB-1)/10+1

MRITE (6,352)

RBCL(K,J) = XDUM(J)

0104 0105 0106

ISN ISN SN ISN ISN ISN SN ISN

0103

CONT INCE CONT INCE

100

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0107 9010 0110 0111 0112

SN

DO 100 J=1.JMAX

CHEN 1

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A BUNNA 72 ABUNNATA ABUNNA74 ABUNNA 76 ARUNNATA ABUNNY 78 ABUNNA79 ABUNNYBO ABUNNYTI ARUNNY 75 ABUNNYA ABUNNAB

FORMAT(/ 9X.6HZT(L)=.10F10.5/)

356

0113

0114 0117

0115 0118 0119 0120 0122 0124 0125

SN SN

ISN ISN ISN

IF (KEND.GT.KB) KENDEKB

KSTRT=(KKK-1)\*10+1

KEND=KSTRT+9

DO 310 KKK=1,KUMX

CHEN 1122	CHEN 1123	CHEN 1124	CHEN 1125	CHEN 1126	CHEN1127	CHENTIZE	CHEN1129	CHEN 1130	CHENII31	CHEN 1132	
00 180 J=1.NRBS	DXU(J) = CDE1#FY(20+4L.J)+CDE2#FY(20+LL+1.J)	180 CONTINUE	170 CONTINUE	* 0	C 44 TO DU THE STREAMVISE INTERPOLATION	* *	CALL SLOPY(XRBS, DXU, NFBS, XIN, JMAX, XDUM, XDUM2)	DO 190 JE1-JHAX	FY(L-LEBL.3) = XDUM(3)	190 CONT INLE	
15N 0160	15N 0161	15N 0162	15N 0163				15N 0164	15N 0165	15N 0166	15N 0167	

IF ( -NOT - BBCPRT) GO TO 364 LUMX=(18510E-3)/10+1

LUMXW=1851DE-2

0171 0172 0173

WRITE(6,362)

CHEN 1117 CHEN 1116 CHEN 1119

CHEN 1120

DUM = Z80D(LL+1)-Z80D(LL) COE1 = (Z80D(LL+1)-Z7(L))/DUM COE2 = (Z7(L)-Z80D(LL)

DXU(3) = FY(20+LL, J)

GO TO 170

160

0153

CONT INCE CONT INCE

140

0156 0156

DO 160 JET. NRBS

CONT IME

130

0151 0152 0154 0155 CHENIIZE

CHENTITA CHEN 1113 CHENIIIA CHEN 1115 CHEN 1116

> JF(LEND.6T-LUMXW) LEND=LUMXW
> MRITE(6.357) (ZT(LLBL+ L).L=LSTRT.LEND) WRITE(6.355) (L.L.ELSTRTX.LENDX) DO 322 J=1.JMAX LSTRT=(LLL-1)\*10+1 DO 322 LLL=1.LUMX LSTRTX=LSTRT+LLBL LEND X=LEND+LLBL LEND=LSTRT+9 0175 0175 0176 0170 0180 0181 0182 \*\*\*\*\*\*\*\*\*\*\*\*

PRITE(6,358) JOXIN(J), (FY(L.J), L=LSTRT, LEND)

322

ABUNNER

ABUNNWES

ABUNNAYOU FIXCMER

ABUNINY92 ABUNINY93

ABUNNAGA

ABUNNY96 ABUNNY96

ISN

PAGE

ABUNNAOB	ABUNING9	GEOMBREZ	***GEOMBR63	GEOM BR64	GEOW 9R65	GEOMBRAS	GEOM 9967	GEOMBRÉS	CHEN 1138	CHEN 11.39	PARE DN37	CHEN 1141	PARE DN38	CHEN1142	CHEN1143	CHENIIAA	CHEN 1145	GEOW BR 75	IL =PARETN39	PAREDNAO	PAPE DN41	GEOM HP 77	GEOM HR 78	GEOMBR79	GEOMBRRO	GEOMBPET
364 CONTINUE	362 FURMAT(1H1/20x,16HSIDE WALL FY S /)		C****** COMPUTE DIFFERENCE COEFFICIENTS FOR BODY BOUNDARY CONDITION ***GEOMBROS	C (6) 338 (a.d. 1989)	D98CU = 2./((ZT(LLBU+1) - ZT(LLBU))*(ZT(LLBU+1) + ZT(LLBU)	1 - 2.**ZRBU))	DRBCL = 2./((ZT(LLBL) - ZT(LLBL-1))*(2.*ZRBL - ZT(LLBL)	1 - ZT((LB(-1)))	MM1 = -2./(ZT(LLBU+1)+ZT(LLBU)-2.*ZRBU)	DUM2 = 2./(2.*7PBL-ZT(LLBL)-ZT(LLBL-1))	ADA=ALPHAB/57.29577951	DO 12 JE1. JHAX	ADFA=SALPH(J)*ANA	DO 220 K=1.KB	RBCU(K,J) = DUM1*(RBCU(K,J)-AOFA)	PBCL (K.J) = DUM2# (RBCL(K.J)-ADFA)	220 CONTINUE	12 CONTINUE	600 FORMAT(1H1/40X,13HBODY GEOMETRY // 20X,7HKROOT = ,12,10X,6HLLBL	1 .12.10x.6HLLBU = .12.10x.6HNPTS = .12/)	604 FORMAT(5X,515)	601 FORMAT( 10x.4110)	602 FORMAT(10x+110+4F12+5)	603 FORMAT(/10x, 16HJ, XIN, XI, DXU, DXL/)	PETURN	END
1SN 0185	15N 0186				15N 0187		15N 0188		0189	0610	1610	0192	0193	9610	9610	9610	1610	8610	6610		ISN 0200	ISN 0201	0202	0203	15N 0204	1SN 0205
Z	Z				Z		Z		ISN	ISN	ISN	ISN	ISN	ISN	ISN	NSI	ISN	ISN	ISN		Z	Z	ISN	ISN	Z	ZS

HOPTIONS IN EFFECT+NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE ENCOIC NOLIST NOWFCK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

SOURCE STATEMENTS = \*STATISTICS\*

4838, SURPROGRAM NAME =GEOMPR 204, PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

112K SYTES OF CORE NOT USEN

REQUESTED OPTIONS OPT(2) . NOMAP

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		ESH PULNIS I	N CUARSE EX	IERION MES			GEOBER	0 0	
15N 0003	COMMON / EXTER /	XIEX(30) .	ETAX(20)	. ZTX(20)	•	XINX (30)	. EXTER	2	
	The state of the s	X11X(30) .	X1CX(30)	. XIRX(30)	•	ETALX(30)	. EXTER	. 3	
	2	ETACK(20) .	ETARX(20)	. XMINX	•	XMAXX	. EXTER		
	3	YMAXX .	ZMAXX	. WINX	•	ZNINZ	. EXTER	5 -	
		ZLW.X	ZPVLX	. ZCVLX	•	ZVUX	. EXTER	9 -	
	2	ZRWUX .	ZCVUX				EXTER	1	
15N 0004	COMMON / INDEXX	- JWAXX	KMAXX	. LMAXX	•	KTM1X	. INDEX	2 %	
		KTIPX .	KTIPIX	. JLEX (20)	•	JTEX (20)	. INDEX	8 3	
	2	LWNGUX .	LWNGLX	. JMAXXI	•	KWAXX1	. INDEX	4	
	3.5 4.4 4.4 4.4	LMAXXI .	KROOTX	. Jelx			PNDEX	w &	
15N 0005	COMMON / BODY! /	XNOSE .	XTAIL	. NBIN(2)	•	XBIN(2,35).	. BODY	~	
	THE RESERVE THE PROPERTY OF THE PARTY OF THE	· sauge	JBUP(2)	. JBDN(2)	•	JANOSE	. BODY	3	
	2	STAIL .	ALPHAB	. NBPTS(90)		R(90)	. BODY	•	
	The state of the s	KBMX(90)	LMN	· CMX	•	AFK(15)	. BOOM	8	
	WANTE OF BUILDING	BFK(15) ,	CFK(15)	. AFL(15)	•	BFL(15)	· BOOM	9	
	9	GE(115)	ABL (15)	. BBL(15)	•	CBL(15)	. BODY	1	
	9	ACL(2) .	BCL(2)	• CCL(2)	•	BTYPE	. BOD .	0	
	A 1000 1	xPBU(90) .	XRBL (90)	. DZRBU(90)		DZ RBL (90)	. CHENI	-	
	•	NPBR)	NRBL	. YRB	•	28BU	· BODY	10	
	. 6	ZRBL .	KBMXX(30)	. JNOSEX	•	JAILX	. BODY	11	
	•	RB IN (2,35),	XNOSEX	. XTAILX	•	Y08	FIXCVA	. 1	
1SN 0006	COMMON / BODY2 /	FX (30,90) .	FY (30,90)	. FZ(30,90)	_			1X23	
	-	KBCD (30,90)		. LBU(20.90).	:	LBD(20,90)		X24	
	2	NBPTSX(30).	LBOD (30,90)		•		COMF TX25	IX25	
	m	LBUX (20,30)		. LBDX (20 .30)	30)		. COMF IX26	32X	
	•	FYX(20,30).					COMP IX27	X27	
15N 0007	COMMON / BUDNS /	KBMAX .	KHWAXX	. LLAL	•	LLBU	. BOD	18	
	•	LLBLX .	LLBUX	. PBCU(30.90)	6		. COMF 1X29	62×	
	N	KBS .	PBCL (30,90)	-	•		COMP 1X30	X30	
		RBCUX (20,30)		. RBC X(20,30)	.30	4555333	. COMP TX31	(KX)	
		· DBBCO	DRBCL	. DRBCUX	•	DRBCLX	. COMP 1X32	1X32	
	\$	SALPH(90) .	SALPHX (30)				COMP TX33	X33	
15N 0008	COMMON / BODYBC /	. 18th	IBLD	. IBSIDE	•	ETABLIC 10)	. COMF 1X34	N34	
		ETABL(10) .	ZB00 (20)	. NRBS	•	XPBS(100)	COMP 1X35	X35	
15N 0009	COMMON / FLAGS /	TOTSK .	ISAVE	. 1Pt.0T	•	MSHINT	. FLAGS	2	
		SOLV .	WECPRT	. BBCPRT	•	800 v	. FLAGS		
	8	FCP .	ISPAN	. IF INR	•	ICRUDA	. THIPTX		
	n	EXTINSH .	REMESH	. IMAPR	•	YAW	. TAPTX	2	
	•	I HEMD	IVISC	. ITWIST	•	FOILT	. TAPTX	m	
	2	IBODIN .	AXISAM	. AREA	•	18COUT	THPTX	*	
15N 00 10	LOGICAL	TOTSK .	ISAVE	. IPLOT	•	MSHINT	. COME D	* ×	
	-	SOLV	MACDRI	· BBCDRT	•	BODY	. COMP IX	×	
	2	FCP .	ISPAN	. IF INR	•	1CRUDR	. COMP TX	6 ×	

	COMMON ALEVIX/ COMMON ALEVIX/ COMMON / WING /	EXTMSH IBUMP IROD IN DXU(90) XDUM3(90) XDUM6(2000)		REMESH IVISC AXISYM DXL(90) XDUM4(90)	*****	IMAPR ITWIST AREA XDUM (90) XDUM5(90)	 FOILT . RELOUT . ADUM2(90) .	
	N M 4 W 0 F &	ALET NEI CRIDT NPAN YTWST(11) ZF(160,11)		XTET YLE1(10) YTE1(10) SSPAN YP(11) INUX(11) KSWTHS(11) CDRD(30)	****	SREF XLE1(10) XTE1(10) THICK(11) THETP(11) INLX(11) XMOM COPOW(30)	 SYREE SYRUE SYROS ZYNGWL MYWST WF(180,11), ALE(30)	INPTX 7 INPTX 9 INPTX 10 AIRFOILS AIRFOILS INPTX 11
	9 XTE(30) - RFACT - CMEAN - XTEW(3 NSO - NSI - KXO(12) - KXI(12 C XXO(12-10) - XXI(112-10) - DXRO(12-10) - YXI(12 C XXO(12-10) - XXI(112-10) - DXRO(12-10) - DXRI(12 E D D D DXTO(12-10) - DXTI(12-10) - DXRO(12-10) - DXRI(12 E CAP - XLEWX(30) - XTEWX(30) - CDRDX CAP - XDR - XDR - XDR - XTEWP(30) - XTE	XTE(30) NSO NXO(12) XXO(12-10) XXO(12-10) XTIPXI CAV KSWICH ESH POINT U	3	RFACT NS1 NX1(12) NX1(12,10) DX1(12,10) XLEWX(30) XOR	9558424	CMEAN KXO(12) VXO(12-10) DXRO(12) ALEMA(30) ALEWP(30)	 XTEW(30) .  KX1(12) .  YX1(12-10) .  DXR1(12) .  CORDX .  XTEWP(30) .	AIRFOILE AIRFOILE AIRFOILE AIRFOILE CHORD I VSCFX3 I VSCFX3 I GEOBRX13
Ř	XYOSEX = XINX(1) XTAILX = XINX(JM, JAILX = JMAXX 1SET=0 DO 300 =1, JMAXX SALPHX(J)=1,0 DO 2 L = 2, LMAXX 1F (1SET =0,1)	(X) 9						GEOBOX15 GEOBOX16 GEOBOX17 GEOBOX18 CHEN2 3 PAREDNA2 PAREDNA2 GEOBOX19
	11 (27X(L) 11.BL X = L 11.BL X = L 12.BL X = L 14.CD X = L 15.CD X = L 16.CD X = L 17.CD X = L 18.CD X = L 19.CD X	u. 1) 60 10 3 .LE. ZRRL) 60 TO .LT. ZRBU) 60 TO	m N					GEOBRY 20 GEOBRY 23 GEOBRY 23 GEOBRY 25 GEOBRY 25 GEOBRY 25 GEOBRY 25
.15.	1 CONT TAKE  1 CON	BUX - LLALX	<u>'</u>					GFOBRYZR PAREINAS GFOBRY36 GFOBRY36 GFOBRY39 GFOBRY39 GFOBRY39

FEINMENTER GO TO 13  WHITE GAOD KROTX-LLBLX-LLBUX-NPTS  IS CANTINE  C = STARLISH GAID SLOPES FOR SIMPLE RODY INDUT  IF (**MOT-RECPRIT) GO TO 13  WHITE GAODO KROTX-LLBLX-LLBUX-NPTS  IS CANTINE  C = ** TO INTERPOLATE FOR UPPER AND LINER RODY SLOPES ************************************	2000	***************************************	
FILINDOIN) CALL OUIXX  IFLINDOIN) CALL OUIXX  IFLINDOIND CALL OUIXX  ISCANTINE  Cassesses INTERPOLATE FOR UPPER AND LOWER RODY SLOPES sessessessesses  Cass TO INTERPOLATE FOR UPPER AND LOWER RODY SLOPES sessessesses  Cass TEXAKIS, SCATABLKKK, I CO TO AO  IFLIETXKKIS, SCATABLKKK, I CO TO AO  SO ONTINE  DO 30 OKENIA (AGE ERROR ENCOUNTERED IN INTERPOLATING DZDX, K = , of of TO AO  STOPP  40 CONTINE  DO 70 DE 14-RRIU  DO 10 DE 16-RRIUCKA 1) - ETABLKKK, I CO TO AO  SO ONTINE  DO 70 DE 16-RRIUCKA 1) - ETABLKKK, I CO TO AO  SO ONTINE  DO 10 DE 16-RRIUCKA 1) - ETABLKKK, I CO TO AO  SO CONTINE  DO 10 DE 16-RRIUCKA 1) - ETABLKKK, I CO TO AO  SO CONTINE  DO 10 DE 16-RRIUCKA 1) - ETABLKKK, I CO TO AO  SO CONTINE  DO 10 DE 16-RRIUCKA 1) - ETABLKKK, I CO TO AO  SO CONTINE  DO 10 DE 16-RRIUCKA 1) - ETABLKKK, I CO TO AO  SO CONTINE  BETANCK, CO - ETABLKKK, I CO TO AO  SO CONTINE  BETANCK, CO - ETABLKKK, I CO TO AO  SO CONTINE  BETANCK, CO - ETABLKKK, I CO TO AO  SO CONTINE  BETANCK, CO - ETABLKKK, I CO TO AO  SO CONTINE  BETANCK, CO - ETABLKKK, I CO TO AO  SO SO SO - ETABLKKK, I CO TO AO  SO S	2		OUTCK 6
FFITHODIM CALL OUTKX   FFITHODIM CONTINUE   FFITHODIA CONT		SLOPES FOR	007CK 7
FELIMONIN CALL OUTRX			OUTCK 8
Fig. MOT. BECRET; GO TO 13   WRITE(6.600) KROOTX.LELKY.ALRUX.NPTS     Continue   Continue   Continue   Continue   Continue     Continue   Con	:	IF(IMODIN) CALL OUIKK	FIXGX 7
If (ANTENDECRET) GO TO 13   WRITE(A=00) KROOTX, LLBLX=LLBUX, NPTS    13 CONTINUE		O Control of the Cont	
WITTERFOLATE FOR UPPER AND LOWER RODY SLOPES ####################################	90	1F(.NOT.8BCPRT) GO TO 13	ABUNNIOO
13 CONTINE  C	8		ABUNNIO1
C C C C C C C C C C C C C C C C C C C	60		ARUNNIOS
C ***  C ***  C ***  C ***  C ***  C ***  E ** KB = K6S-1 **  DO 20 K=1 **B  C ***  C ***  E ** RB = K6S-1 **B  DO 20 K=1 **B  C ***  C ***  C ***  C ***  E ** RB C C C C C C C C C C C C C C C C C C			GEORRX51
C ** TO INTERPOLATE BODY HOUNDARY CONDITIONS  C ** TO INTERPOLATE BODY HOUNDARY CONDITIONS  C ** KB = KBS-1  DO 20 Ks.1* BD  TO 20 Ks.1* BD  TO 20 Ks.1* BD  TO 20 Ks.1* BD  TO 20 Ks.1* BD  C **  C *		STREET INTERPORATE	GEOBRASS
C ** TO INTERPOLATE BODY MOUNDARY CONDITIONS  C ** TO SO KE-1, RB  DO 20 KE-1, RB  TO 20 LB  TO 20 L			GEORRYSS
THE TETAKIKA STREET TO TO TO 40  THE (ETAKIKA STREET SHOW)  TO STREET SHOW SHOW SHOWN SHOWN SHOWN SHOW SHOW SHOW SHOW SHOW SHOW SHOW SHOW			CHEMILES
KB = KBS-1  DD 20 KE=1 KB  SO GONTINE  C ** ERROR ENCOUNTERED  C ** WRITE (6.60) K*KK  60 FORMAT (40FT ERROR ENCOUNTERED IN INTERPOLATING DZDX, K = , 1 STOP  STOP  TO TOW INE  DD 70 JE1, WRBU  DD 70 JE1, WRBU  DD 70 JE1, WRBU  DD 70 JE1, WRBU  CONTINE  GD 70 DE1 (FTAKIK) - ETABUTKK)  TO CONTINE  CONTINE  DO 90 JE1 KRBU  DO 100 KRE1 JBLD  TE (ETAXIK) - ECA-ETABL (KK) - AND-ETAXIK) - L'A-ETABL (KK+1, J)  SO CONTINE  BUTTE (6.60) K*KK  STOP  1010 CONTINE  WITH (6.40) K*KK  STOP  DO 230 JE1 KRBU  DO 230 JE1 KRBU  DO 230 JE1 KRBU  DO 1030  GONTINE  WITH (1) E RBCL(20+KK, J)  E 30 CONTINE  WITH (1) E RBCL(20+KK, J)  E 30 CONTINE  WITH (1) E RD 1030		INTERNATE	CHEN1149
DO 20 K=1.80 DO 30 K=1.80  IF (ETAKIK).60.ETABUTKK). AND.ETAXIK).LT.ETABUTKK+1)) GO TO 50 IF (ETAXIK).61.ETABUTKK).AND.ETAXIK).LT.ETABUTKK+1)) GO TO 50  C ** ERROR ENCOUNTERED  C ** ERROR ENCOUNTERED  O DO 1. 13. 74. KK = .15)  ** STOP  40 CONTINUE  DO 70 .1. 1. **REUTKK.)  CONTINUE  CONTINUE  CONTINUE  CONTINUE  CONTINUE  CONTINUE  CONTINUE  CONTINUE  CONTINUE  OO 90 .1. 1. MRBU  DO 100 KK.** 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	-		CHENITSO
DO 20 (KE-1:180.D)  1F (ETAX(K).=G0.ETABU(KK)) GO TO 40  1	000		CHENIESI
F (ETAXKK) = GETABU(KK) = AND = FAX(K) = LT = FABU(KK+1)   GO TO 40	100		CHENIES
F (ETAKKK) GG-ETABU(KK) -LT-ETABU(KK+11) GO TO SO   C	700		CHENTISS
30 CONTINE  C ***  C ***  C ***  C ***  ERROR EMCRUNTERED  C ***  ***  ***  ***  ***  ***  ***	200	CETACKS OF STABILITY AND STACKS OF STABILITY OF TO	CHENTION
C *** CROP ENCOUNTERED  C ** WRITE (6.60) K.KK  60 FORMAT (48H ERROR ENCOUNTERED IN INTERPOLATING D.DX, K = ,  1	087	THE LEGALITY OF THE TABLE AND THE TABLE TO T	CHENITO
C ** ERROR ENCOUNTERED  C ** WITTE (6.60) K.KK  60 FORHAT (48H ERROR ENCOUNTERED IN INTERPOLATING DZDX, K = ,  STOP  40 CONTINUE  DD TO \$=1.WRBU			CHEN 1157
## ## ## ## ## ### ### ### ### ### ###			CHENSISE
## ## ## ## ## ## ## ## ## ## ## ## ##			CHEN 1150
60 FORMAT (4894 ERROR ENCOUNTERED IN INTERPOLATING DZDX, K = .)  STOP  40 CONTINUE  DO 70 J=1 ,NRBU  DO 70 J=1 ,NRBU  TO CONTINUE  60 TO 80  SO CONTINUE  60 TO 80  SO CONTINUE  60 TO 80  SO CONTINUE  60 TO 90 J=1 ,NRBU  DO 1000 KK=1,1BLD  IF (ETAXIK) = COE 148E(IK) ) GO TO 1010  IF (ETAXIK) = COE 148E(IK) ) GO TO 1010  IF (ETAXIK) = COE 148E(IK) ) GO TO 1010  IF (ETAXIK) = COE 148E(IK) ) GO TO 1010  IF (ETAXIK) = STOP  1010 CONTINUE  DO 230 J=1 ,NRBL  DO 230 J=1 ,NRBL  DO 230 J=1 ,NRBL  DO 230 D=1 ,NRBL  ED 230 D=1 ,NRBL  DO 230 D=1	950		CHENITO
1 15.74. KK = .15)  STOP  40 CDNT INUE  DD 70 JE1.MRBU  DD 70 JE1.MRBU  DD 70 JE1.MRBU  CDE1 = (ETABUKK+1)-ETABUKK)  CDE2 = (ETAXKK)-ETABUKK)  CDE2 = (ETAXKK)-ETABUKK)  CDE3 = (ETABUKK+1)-ETABUKK)  CDE4 = (ETABUKK+1)-ETABUKK)  CDE5 = (ETAXKK)-ETABUKK)  CDC9 JE1.MRBU  DD 90 JE1.MRBU  DD 90 JE1.MRBU  DD 90 JE1.MRBU  DD 1000 KK=1.IBLD  IF (ETAXKK)-E0.FTABL(KK).AND.ETAXKK).LT.ETABL(KK+11.J)  STOP  1000 CDNTINUE  WRITE (6.60) K.KK  STOP  1010 CDNTINUE  DD 230 JE1.MRBL  DD 230 JE1.MR	650	FORMAT (484 ERROR ENCOUNTERED IN INTERPOLATING DZDX. K =	CHEN 1161
\$\frac{40}{40} \text{CDMTIME}\$  \$\frac{40}{40} \text{CDMTIME}\$  \$\frac{60}{40} \text{TO } TO		-15)	CHEN1162
40 CDNTINE DD 70 ±1.WRBU DD 70 ±1.WRBU DD 70 ±1.WRBU DD 70 ±1.WRBU TO CDNTINE 6.0 TO 80 SO CDNTINE CDE1 = (ETABU(KK+1)-ETAX(K))/DUM CDE2 = (ETABU(KK+1)-ETAX(K))/DUM CDE3 = (ETABU(KK+1)-ETAX(K))/DUM CDE4 = (ETABU(KK+1)-ETAX(K))/DUM CDE5 = (ETAX(K)-ETABU(KK))/DUM CDE6 = (ETAX(K)-ETABU(KK))/DUM CD 90 ±1.WRBU DXU(J) = CDE1*RBCU(20+KK,J)+CDE2*RBCU(20+KK+1,J) 90 CDNTINE DO 1000 KK=1.IBLD IF (ETAX(K).EQ.ETABL(KK).AND.ETAX(K).LT.ETABL(KK+1)) GD TO 1020 IF (ETAX(K).GT.ETABL(KK).AND.ETAX(K).LT.ETABL(KK+1)) GD TO 1020 IN (ETAX(K).GT.ETABL(KX).AND.ETAX(K).LT.ETABL(KK+1)) GD TO 1020 IOOC CONTINUE WRITE (6.60) K.KK STOP IOOC CONTINUE WRITE (10.00 CDNTINUE WRITE (10.00 CDNTINUE DD 230 J=1.WRBL DD 230 J=1.WRBL DD 230 J=1.WRBL DD 230 J=1.WRBL CD TO 1030	090	STOP	CHEN1163
DO 70 J=1,MRBU  DXU(J) = RBCU(20+Kk,J)  70 CONTINUE  60 TO 80  50 CONTINUE  CDE1 = (ETABU(KK+1)-ETABU(KK)  CDE2 = (ETAX(K)-ETABU(KK))/DUM  CDE2 = (ETAX(K)-ETABU(KK))/DUM  CDE3 = (ETAX(K)-ETABU(KK))/DUM  CDE4 = (ETAX(K)-ETABU(KK))/DUM  CDE5 = (ETAX(K)-ETABU(KK))/DUM  CDE5 = (ETAX(K)-ETABU(KK))/DUM  DXU(J) = CDE1*RBCU(20+KK,J)+CDE2*RBCU(20+KK+1,J)  90 CONTINUE  80 CONTINUE  DO 1000 KE:1/BLD  1F (ETAX(K)-EQ-ETABU(KK)) GO TO 1010  1F (ETAX(K)-EQ-ETABU(KK)) AND-ETAX(K)-LT-ETABU(KK+1)) GO TO 1020  1000 CONTINUE  WRITE (6.60) K.KK  STOP  1010 CONTINUE  DO 230 J=1.NRBL  DXL(J) = RBCL(20+KK,J)  230 CONTINUE  60 TO 1030	190		CHEN 1164
DXU(J) = RBCU(20+KK,J)  70 CONTINUE 60 TO B0  50 CONTINUE COE1 = (ETABU(KK+1)-ETABU(KK) COE2 = (ETAX(K)-ETABU(KK))/DUM COE2 = (ETAX(K)-ETABU(KK))/DUM COE2 = (ETAX(K)-ETABU(KK))/DUM DO 90 JE1,NRBU DXU(J) = COE18RBCU(20+KK,J)+COE28RBCU(20+KK+1,J) 90 CONTINUE B0 CONTINUE DO 1000 KK=1,IBLD IF (ETAX(K)-E0-ETABL(KK)) GO TO 1010 IF (ETAX(K)-GT-ETABL(KK)-AND-ETAX(K)-LT-ETABL(KK+1)) GO TO 1020 1000 CONTINUE NRITE (6.60) K*KK STOP 1010 CONTINUE DXL(J) = RBCL(20+KK,J) 230 CONTINUE DXL(J) = RBCL(20+KK,J) COOTTINUE DXL(J) = RBCL(20+KK,J) COOTTINUE CONTINUE DXL(J) = RBCL(20+KK,J) COOTTINUE CONTINUE CONTI	290	ī	CHEN 1165
70 CONTINE 6.0 TO 80 50 CONTINE CO TO 80 50 CONTINE DUM = ETABU(KK+1) -ETABU(KK) COE1 = (ETAX(K)-ETABU(KK)) / DUM COE2 = (ETAX(K)-ETABU(KK)) / DUM COE2 = (ETAX(K)-ETABU(KK)) / DUM COE2 = (ETAX(K)-ETABU(KK)) / DUM DO 90 J=1,NRBU DO 00 TO 1000 KK=1,1BLD PO 1000 KK=1,1BLD PF (ETAX(K)-E0-ETABL(KK)) GO TO 1010 PF (ETAX(K)-E0-ETABL(KK)-AND-ETAX(K)-LT-ETABL(KK+1)) GO TO 1020 1000 CONTINUE WRITE (6.60) K*KK STOP 1010 CONTINUE DO 230 J=1,NRBL DO 230 J=1,NRBL DO 230 J=1,NRBL DAL (1) = RBCL(20+KK-J) 230 CONTINUE CO TO 1030	690	DXD(3) =	CHEN 1166
50 TO 80  50 CONTINUE  DUM = ETABU(KK+1) -ETABU(KK)  COE1 = (ETAX(K) -ETABU(KK)  COE2 = (ETAX(K) -ETABU(KK)) / DUM  COE2 = (ETAX(K) -ETABU(KK)) / DUM  DO 90 JE1,NRBU  DO 00 TO JE1,NRBU  80 CONTINUE  80 CONTINUE  DO 1000 KK=1,1BLD  1000 CONTINUE  WRITE (6,60) K*KK  \$1000 CONTINUE  WRITE (6,60) K*KK  \$1000 CONTINUE  WRITE (1,000) K*KK  \$1000 CONTINUE  WRITE (1,000) K*KK  \$1000 CONTINUE  DO 230 J=1,NRBL  DO 230 J=1,NRBL  DAL (1) = RBCL(20+KK,J)  230 CONTINUE  CO 1030	190		CHEN1167
SO CONTINUE  OWN = ETABU(KK)  CDE1 = (ETABU(KK+1)-ETAX(K))/DUM  CDE2 = (ETAX(K)-ETABU(KK))/DUM  CDE2 = (ETAX(K)-ETABU(KK))/DUM  DO 90 JE1 **NRBU  DXU(J) = CDE1*RBCU(20*KK*J)+CDE2*RBCU(20*KK+1*J)  90 CONTINUE  80 CONTINUE  80 CONTINUE  1000 CONTINUE  1000 CONTINUE  WRITE (6.60) K*KK  STOP  1010 CONTINUE  DO 230 JE1*NRBL  DO 230 JE1*NRBL  DAL (J) = RBCL(20*KK*J)  230 CONTINUE	590	-	CHEN 1168
CDE1 = (ETABUTKK+1) -FTAX(K))/DUM  CDE2 = (ETABUTKK+1) -FTAX(K))/DUM  CDE3 = (ETAX(K) -ETABUTKK))/DUM  DD 90 JE1 **NRBU  DXU(J) = CDE1**RBCU(20**K*,J) +CDE2**RBCU(20**K*+1,J)  90 CDNT INUE  80 CDNT INUE  80 CDNT INUE  1000 CDNT INUE  1000 CDNT INUE  1000 CDNT INUE  1000 CDNT INUE  NRTTE (6.60) K*K  STOP  1010 CDNT INUE  DO 230 JE1**NPBL  DO 230 JE1**NPBL  DAL (J) = RBCL(20**K*,J)  230 CDNT INUE  GD 70 1030	990		CHEN1169
COE1 = (ETABUTKK+1)-FTAX(K))/DUM COE2 = (ETAX(K)-ETABUTKK))/DUM COE2 = (ETAX(K)-ETABUTKK))/DUM DO 90 JEI,NRBU DXU(J) = COE1#RBCU(20+KK+1,J) 90 CONTINUE B0 CONTINUE B0 CONTINUE B0 CONTINUE B1 (ETAX(K)-E0,ETABL(KK)) GO TO 1010 BF (ETAX(K)-E0,ETABL(KK)-AND-ETAX(K)-LT-ETABL(KK+1)) GO TO 1020 1000 CONTINUE WRITE (6,60) K*K STOP 1010 CONTINUE DO 230 J=1*NPBL DO 230 J=1*NPBL DXL(J) = RBCL(20+KK*J) 230 CONTINUE GO TO 1030	190	**	CHEN 1170
COE2 = (ETAX(K)-ETABLUKK))/DUM  DO 90 LEI-NRBU  DXU(1) = COE1#RBCU(20+KK,J)+COE2#RBCU(20+K+1,J)  90 CONTINNE  80 CONTINNE  80 CONTINNE  B0 CONTINNE  1000 CONTINNE  1000 CONTINNE  1010 CONTINNE  1010 CONTINNE  DX 230 J=1.NPBL  DX (1) = RBCL(20+KK,J)  230 CONTINNE  DX (1) = RBCL(20+KK,J)  CONTINNE  DX (1) = RBCL(20+KK,J)  CONTINNE  DX (1) = RBCL(20+KK,J)	990		CHEN 1171
DO 90 LEI JARBU  DO 90 LEI JARBU  DOU(J) = COEIFRBCU(20+KK,J)+COEZ#RBCU(20+KK+1,J)  90 CONTINUE  80 CONTINUE  DO 1000 KK=1,1BLD  1F (ETAX(K),EQ,ETABL(KK)) GO TO 1010  1F (ETAX(K),EQ,ETABL(KK)) GO TO 1020  1000 CONTINUE  WRITE (6,60) K,KK  STOP  1010 CONTINUE  DO 230 J=1,NPBL  DX L(J) = RBCL(20+KK,J)  230 CONTINUE  GO TO 1030	690	2	CHEN 1172
DXU(J) = CDE1*RBCU(20+KK.J)+CDE2*RBCU(20+K+1.J) 90 CDNTINUE 80 CDNTINUE DO 10000 KK=1.1BLD 1F (ETAX(K).eCo.ETABL(KK).GO TO 1010 1F (ETAX(K).eCo.ETABL(KK).AND.ETAX(K).LT.ETABL(KK+1)) GO TO 1020 1000 CDNTINUE WRITE (6.60) K.KK STOP 1010 CDNTINUE DO 230 J=1.NPBL DAL(J) = RBCL(20+KK.J) 230 CDNTINUE GO TO 1030	0.40		CHEN1173
90 CONTINUE 80 CONTINUE DO 1000 KK=1.1BLD 1F (ETAX(K).eG.ETABL(KK)) GO TO 1010 1F (ETAX(K).eG.ETABL(KK).aND.ETAX(K).LT.ETABL(KK+1)) GO TO 1020 1000 CONTINUE WRITE (6.60) K.KK STOP 1010 CONTINUE DO 230 J=1.NPBL DAL(J) = RBCL(20+KK.J) 230 CONTINUE GO TO 1030	071	DX0(3) =	CHEN1174
80 CONTINUE DO 1000 KK=1.1BLD IF (ETAK(K).eG.ETABL(KK).) GO TO 1010 IF (ETAK(K).eG.ETABL(KK).) GO TO 1010 IF (ETAK(K).eG.ETABL(KK).) GO TO 1020 1000 CONTINUE WRITE (6.60) K.KK  \$100 CONTINUE DO 230 J=1.NPBL DAL(1) & RBCL(20+KK.J) 230 CONTINUE GO TO 1030	072		CHENTITS
DO 1000 KK=1.1BLD  IF (ETAX(K).6G.ETABL(KK)) GO TO 1010  IF (ETAX(K).6G.ETABL(KK).AND.ETAX(K).LT.ETABL(KK+1)) GO TO 1020  1000 CONTINUE  WRITE (6.60) K.KK  570P  1010 CONTINUE  DO 230 J=1.NPBL  DAL (J) & RBCL(20+KK.J)  230 CONTINUE  GO TO 1030	073	8	CHEN1176
	10	PO 1000 KK=1+18LD	CHEN 1177
1000 CONTINUE  WRITE (6.60) K.*KK  STOP  1010 CONTINUE  DO 230 J=1.NPBL  DXL(J) = RBCL(20+KK.J)  CONTINUE  GO TO 1030	2	IF (ETAKK) EG-ETABL (KK)) GO TO 1010	CHEN 1178
1010 CDNT INUE 5TOP 1010 CDNT INUE DO 230 J=1.NPBL DXL(J) = RBCL(20+KK,J) 230 CDNT INUE GD TO 1030	200	. 8	CHENITY
STOP 1010 CDVT INUE DO 230 J=1.NPBL DXL(J) = RBCL(20+KK,J) 230 CDVT INUE GD TO 1030	200		CHENTIBO
1010 COUNTINUE  DO 230 J=1.NPBL  DXL(J) = RBCL(20+KK,J)  230 CONTINUE  GO TO 1030	200	TALLE (DOOD) NOW	CHENTIST
1010 CDN INUE DO 230 LUNPBL DXL(1) = RBCL(20+KK,J) 230 CDNT INUE GD TO 1030	100		CHENITOS
DO 230 J= 1.NPBL  DXL (J) = RBCL (20+KK.J)  230 CDNT INJE  GO TO 1030	290	ē	CHEN 1183
DXL (J) * RBCL (20+KK,J) 230 CDNT INJE 60 TO 1030	983	4	CHEN 1184
230 CONT INNE. GO TO 1030	100	DXL (3) =	CHEN 1185
GO TO 1030	992		CHEN1186
	980	AT 40 1070	

ISN	9800			DUM = ETABL (KK+1)-ETABL(KK)	CHEN 1189
ISN				"	CHENTION
ISN				-	CHEN 1191
ISN				9	CHEN 1192
ISN				DXL(J) = CNE1+RBCL(20+KK,J)+C0E2*RBCL(20+KK+1,J)	CHEN 1193
ISN	1 0093		240	CONTINUE	CHEN 1194
ISN			030	CONTINE	CHEN 1195
		·	:		CHEN 1196
		v	*	TO DO THE STREAMVISE INTERPOLATION	CHEN 1197
		v	:		CHEN 1198
ISN				CALL SLOPY(XPBU,DXU,NPBU,XINX,JMAXX,XDUM,XDUM2)	CHEN 1199
ISN				CALL SLOPY(XRBL,DXL,NRBL,XINX, JMAXX,XDUM3,XDUM4)	CHEN 1200
ISN	1 0097			DO 100 J=1.JMAXX	CHEN 1201
ISN				RBCUX(K+J) = XDUM(J)	CHEN 1202
ISN				PBCLX(K,3) = XDUM3(J)	CHEN 1203
ISN	0100		100	CONT INUE	CHEN 1204
ISN			20	CONTINE	CHEN IZOS
			: :		CHENIZIO
				MIN THE STOR WALL	CHEN1212
Ten	2010		:		CHEN1213
IVE					CHEN 1214
Z	010			F (12-11+1-6E-2) GO TO 105	FAIL SA30
					FAILSA31
		U		PROBLEM NO. 34	FAILSA32
					FA11.5433
ISN	9010			WPITE(6,966)	FAIL SA34
ISN				STOP	FAILSABS
		2			FATLSASO
ISN			105	M 110 L=L1 1.2	FAILSAST
ISN					CHEN IZIO
ISN					CHEN 1217
ISN	0112			JF (ZTX(L).6T.ZBDD(LL).AND.ZTX(L).LT.ZBDD(LL+1)) GO TO 140	CHEN 1218
151			120	CONT INCE	CHEN 1219
		U	:		CHEN 1220
		U	:	FRROR ENCOUNTERED	CHENISSI
		U			CHEN 1222
ISN					CHEN1223
ISN	1 0116		150	SH ERROR ENCOL	OND I CHEN 1224
				ITION. L = ,15,7H, LL = ,15)	CHEN 1225
ISN				STOP	CHEN 1226
ISN	4 0118		130	CINT I NUE	CHEN 1227
ISN	4 01 19			PO 160 J=1.NRBS	CHEN 1228
ISN				DXU(J) = FY(20+LL,J)	CHEN1229
ISN			160	CONT INUE	CHEN 1230
ISN				GO TO 170	CHENISAL
ISN			140		CHEN 1232
ISN					CHEN 1233
NS.				11	CHENIZA
ISN					CHENIZAS
200					CHENICSO
120	200			DAU(3) = CUE 1*F*(20+11,3)+CUE2*F*(20+11+1,3)	CHEMICS
101			180	CORTINGE	CHENICOC

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CHEN 1242
                                                                            CHEN 1243
                                                                                                                                             ARUNNIO3
                                                                                                                                                                       ABUNNIOS
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                                                                                                                                                                                                                         ABUNN169
                                                                                                                                                                                                                                       ABUNN110
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                                                                                                                                                                                                                                                                                                                                                           ABUNN119
                                                                                                                                                                                                                                                                                                                                                                                                  GEOBPX65
                        CHEN 1239
                                      CHEN 1240
                                                  CHEN 1241
                                                                                         CHEN 1244
                                                                                                       CHEN 1245
                                                                                                                   CHEN 1246
                                                                                                                                 CHEN 1251
                                                                                                                                                           ABUNN104
                                                                                                                                                                                                             ABUNNIOR
                                                                                                                                                                                                                                                   ABUNNI 11
                                                                                                                                                                                                                                                                                                                                                                        GEOBRX63
                                                                                                                                                                                                                                                                                                                                                                                    **GFORRX64
                                                                                                                                                                                                                                                                                                                                                                                  C****** COMPUTE DIFFERENCE COFFICIENTS FOR BODY BOUNDARY CONDITIONS
                                                                            CALL SLOPY ( XRBS .DXU . NRBS .XINX . JMAXX . XDUM . XDUM2 )
                                                                                                                                                                                                                                                                                                                                             WRITE(6,310) J.XINX(J) . (FYX(L-LLBLX,J),L=L1,L2)
                                                                                                                                                                                                            WRITE(6,310) J.XINX(J) . (RRCUX(K,J) .K=1,KB)
                                                                                                                                                                                                                                                                             WRITE(6,310) J.XINX(J).(RBCLX(K,J).K=1.KB)
                                                  TO DO THE STREAMVISE INTERPOLATION
                                                                                                                                                                                                                                      MRITE(6,313) (ETAX(K),K=1,KB)
                                                                                                                                                                                                                                                                                                      MITE(6,318) (ZTX(L) 4=L1,L2)
                                                                                                                                                                       MITE(6,313) (ETAX(K),K=1,KB)
                                                                                                                                             IF ( .NOT . BBCPRT) GO TO 322
                                                                                                                                                                                                                                                                                                                 MRITE(6,317) (L.L=L1.42)
                                                                                                      FYX (L-LLBLX.J) = XDIM(J)
                                                                                                                                                                                   MRITE(6,315) (K,K=1,KH)
                                                                                                                                                                                                                                                   MITE(6,315) (K.K=1,KB)
                                                                                                                                                                                                                                                                                                                                DO 306 J=1. JMAXX
                                                                                         DO 190 J=1. JWAXX
                                                                                                                                                                                                                                                                 DO 304 J=1.JMAXX
                                                                                                                                                                                                 302 J=1. JMAXX
                                                                                                                                                         RITE(6,312)
                                                                                                                                                                                                                                                                                         RITE(6,316)
                                                                                                                                                                                                                           PITE(6,314)
                                                                                                                   CONTINUE
                                                                                                                                                                                                                                                                                                                                                         322 CONTINUE
                         170 CONTINEF
                                                                                                                                 CONT INCE
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                        15N 0130
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LEVEL 2.2
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ABUNN126
ABUNN127
 GEOBPX66
                              GEDBRYAS
                                              GEOFFIXED
                                                              CHEN 1252
                                                                                             PAREONAS
                                                                                                           CHEN 1255
                                                                                                                            PARE INA 7
                                                                                                                                                                                        CHEN 1259
                GENBRX67
                                                                               CHEN 1253
                                                                                                                                           CHEN 1256
                                                                                                                                                           CHEN 1257
                                                                                                                                                                          CHEN 1258
                                                                                                                                                                                                        GFOBRX 76
                                                                                                                                                                                                                         GEOBRX 77
                                                                                                                                                                                                                                       GEORPATA
                                                                                                                                                                                                                                                      ABUNNI 20
                                                                                                                                                                                                                                                                      ARUNNI21
                                                                                                                                                                                                                                                                                     ABUNN122
                                                                                                                                                                                                                                                                                                     ABUNNIZ
                                                                                                                                                                                                                                                                                                                  ABUNN1224
                                                                                                                                                                                                                                                                                                                                  ARUNNIZS
                             DRB CLX = 2./((ZTX(LL!RLX) - ZTX(LLBLX-1))*(2.*ZRBL - ZTX(LLBLX)
                                                                                                                                                                                                                                                     600 FORMAT (1H1/40X,13HB0DY GEOMETRY //,20X,8HKRDOTX = ,12,10X,
DRBCUX = 2./((ZTX(LLEUX+1) - ZTX(LLBUX))*(ZTX(LLBUX+1) +
                                                                                                                                                                                                                                                                     1 THLLBLX = .12.10x.74LRUX = .12.10x.6HNPTS = .12/)
                                                          FUM1 = -2./(ZTX(LLBUX+1)+ZTX(LLBUX)-2.*ZPBU)

OUM2 = 2./(2.*ZPBL-ZTX(LLBLX)-ZTX(LLBLX-1))
                                                                                                                                                                                                                                                                                                                                                                 ?
                                                                                                                                                                                                                                                                                                                  315 FOPMAT(4X+1HJ+6X+3HX/C+4X+2HK=+14+10112)
                                                                                                                                                                                                                                                                                                                                  FORMAT(4X,1HJ,6X,3HX/C,4X,2HL=,14,10112)
                                                                                                                                                                                                                                                                                                  313 FORMAT(12X, 8HETAX(K)=,10(1X,FT,3,4X))
                                                                                                                                                                                                                                                                                                                                                FORMAT(13X+ 7HZTX(L)=+10(2X+F7+3+3X)/)
                                                                                                                                                                                                                                                                                                                                                               FORMATI/10X, 23HIPPER SURFACE RECUX S
                                                                                                                                                                        PBCLX(K, J) = DUM2*(RBCLX(K, J)-A0FA)
                                                                                                                                                        PBCUX(K.J) = DUM1*(RHCUX(K.J)-AOFA)
                ZTX (LLBUX) - 2.*ZRRU))
                                                                                                                                                                                                                                                                                   310 FURMAT(15,F10.4,7E12.4)
                                                                                            ADA = ALPHAB/57.29577951
                                                                                                                         AOF A=SALPHX(J)*ANA
DO 220 K=1.KB
                                             1 - 27X(LLRLX-1)))
                                                                                                           DO 12 J=1 .JMAXX
                                                                                                                                                                                       CONTINE
                                                                                                                                                                                                       CONT INCE
                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                 317
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                                                                                                                                                                                                                                                      15N 0166
                                                                                                                                                                                                                                                                                                                                                 0171
                                ISN 0155
                                                              0156
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 ISN 0154
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                                                                                            ISN
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-	LEWEL 2.2 (SEPT 76)	192	GEOBRX	092/50	FORTRAN H	05/360 FORTRAN H EXTENDED	DATE 77.295/15.22.30	PAGE
		314	314 FORMAT(1H1/10X+23HLDWER SURFACE RBCLX S // ABUNNIZE	SURFACE	RBCLX S	<	ABUNNIZE	
*		316	FORMAT(1H1/10X, 20HSIDE W	ALL FYX	S		ABUNNIZO	
5		109	FORMAT (10X.4110)				GEDBRXBO	
9		209	FORMAT(10X+110+4F12-5)				GEOBRX#1	
0177		603	FORMAT( /10X . 19HJ . X INX . XI	EX .DXU .C	XL/)		GEOBRARS	
		996	FURMATILILIZA BIHPROBI	LEM NO.	34-THERE	ARE LESS 1	HAN 2 VERTICAL FAILSAJA	
		-	SCRUDE GRID MESH POINTS ON THE BODY . ///)	N THE BC	1777.YOU		FAIL SA30	
2			RETURN				GEOBPKR3	
0180		0 11	ENG				GEOBRX84	

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TEPM FLAG(1) DUMP \*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*STATISTICS\* NO DIAGNOSTICS GENERATED

SOURCE STATEMENTS =

\*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*

120K BYTES OF CORE NOT USED

4536. SURPROGRAM NAME =GEOBRX

179. PROGRAM SIZE =

DATE 77.205/15.22.51

REQUESTED CPTIONS OPT(2) NOMAP

dwng (

5 00 00 00 00 00 00 00 00 00 00 00 00 00		A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
15N 0002	SUBROUTINE TCOEF						TCOEF 2	
							TCDEF 3	
	C****** THIS ROUTINE C	COMPUTES DIFFERENCE COEFFICIENTS *******	ERENCE COEF	FICIENTS *	****	*****	TCOEF 4	
							TCOEF 5	
15N 0003	COMMON / LARGN /	Pr (20 . 30 . 90		DJK1(30,90)	606	•	COMPIXAS	
		DJK2130 . 90)		. DJK3 (30 . 90)	106	•	COMP IXED	
	N	DJK4 (30.90)		. DJK5(30,90)	106	•	COMF 1X47	
		DJK6 (30.90)		. DJK7(30.90)	106	•	COMF 1X48	
		DJKR (30,90)		. DJK9(30,90)	(06	•	COMP 1X49	
	6	DJK10(30,90		. DJK11(30,90	106.		COMF 1X50	
15N 0004	COMMON / INTER /	×1(90)	ETA(30)	· ZT(20)	NIX .	XIN( 90)	INTER 2	
		XIL(90)	XIC(90)	. XIR(90)	. ETA	ETAL(30) .	INTER 3	
	2	ETAC(30) .	ETAR(30)	· COEU	· COEL	•	INTER 4	
	n	ZCAU.	24	. ZRVL	. ZCM		INTER 5	
	•	PDUM(30) .	EDUM(30)	NI WX .	. XMAX	. ×	INTER 6	
	6	YMAX .	ZMAX	NIMA .	. ZMIN		INTER 7	
	•	ZLW.	ZPVU				INTER 8	
15N 0005	COMMON / INDEX /	JMAX .	KMAX	. LMAX	. KTM1		INDEX 2	
		KTIP .	KTIPI	. JWLE	. LE	JE(30)	INDEX 3	
	2	JWTE .	JTE(30)	. LWINGL	. LWI	LWINGU .	INDEX 4	
		JMAX1	KMAX1	. LMAX1	. KROOT	. 10	COMP IX 1	
	•	105					INDEX 6	
15N 0006	COMMON / PARM /	٨.	A2	. A3	*		PARM 2	
		AS .	GAMMA	. MACHNO	• COE	•	PARM 3	
	2	8	EMEXP(2)	. CK1(30)	. CK2	CK2(30)	PARM 4	
	P	CK3(30)	CK4(30)	. CK51(30)		STATE OF THE PARTY.	COMFIXED	
67		CK52(30,90)		. CKIX(30)	. CK2	CK2X(30)	COMF EX !!	
	S	BLOL .	WCOE				COMF IX12	
15N 0007	REAL	MACHINO					COMF 1X13	
1SN 0008	COMMON / WING /	YROOT .	XLER	. XTER	. WIP	•	WING 2	
		XLET .	XTET	. SREF	. SWEEP	EP .	INPTX 7	
	2	MLEI .	ME1(10)	. XLEI(10)	. STRUE	VE .	INPTX &	
	3	NTE!	YTE1(10)	. XTE1(10)	SXPOS .	. so	PNPTX 9	
	•	CROOT .	SSPAN	. THICK(11)	•	ZWNGWL .	INPTX 10	
	·	NP NP N	W(11)	. THETP(11)	1 . NTWST	ST .	AIRFOILS	
	•	YTWST(11) .	INUX(11)	. INLX(11)	. *	XF(180.11).	AIRFOILS	
	_	ZF (180 . 11) .	KSMTHS(11	MOMX .	. XLE	XLE(30) .	INDTX 11	
	•	XI.EW(30) .	CORD (30)	. CORDW(30)	•	CORDIN(11).	WING TO	
	•	XTE(30) .	REACT	. CHEAN	. XTE	XTEW(30) .	WING 11	
	A TELEGISCHE	· OSN	NS1	. KX0(12)		KX1(12)	AIRFOILS	
	œ	NX0(12)	NX1(12)			W1(12.10).	AIRFOIL9	
	U	xx0(12.10).	xx1(12,10)		. DXR	DXR1(12)	AIRFOITO	
	0	DXT0(12)	DXT1(12)	. ALPHAN	•	MIPLE .	AIRFOILL	
	W	NTIPX!	XLEWX (30)	. XTEWX(30)		· xo	CHORD 1	
	u.	CAV .	XOX	. XLEWP(30)	•	XTEWP(30) .	VSCFX3 1	
The seal	9	KSWICH		300 (88)			VSCFX3 2	
1SN 0009	COMMON / LCO /	DE1(90)	DE2(90)	. DE3(90)		DH1(90)	100 2	
		DH2(90)	OH3(90)	· DL1(90)	. OL2	DL2(90)	2 037	

		DL3(90)	10277000		1007700		10217		500	
ISN 0010	COMMON / LCOX /	DE1X(30)	DE-2X (30)		DE 3X (30)	•	DH1X(30)	•	CCOX	
	-	DH2X(30)	DH3X(30)		DE1X(30)	•	DL2X(30)	•	CCOX	
		DC.3X(30)	. DK1(90)	•	106)2X	•	DK3(90)		TCUX	
1100 NSI	COMMON / FLAGS /	IDISK	ISAVE	•	IPLOT	•	MSHINI	•	FLAGS	N: 1
	-	SOLV	MACPET		BACPRI	•	AGDA	•	FLAGS	
	N I	FCK	ISPAN	•	IL INK	•	ICKODK	•	X	
	n.	EXTESH	ACME. SM	•	IMAPH	•		•	X	
	• •	INC	IVISC	•	ITWIST	•	FOIL	•	X	
	c	NICOSI	. AXISTM	•	AREA	•	IBLOUT		XINI	
ISN 0012	LOGICAL	IDISK	. ISAVE	•	IPLOT	•	MSHINT	•	COMP IX	
	-	SOLV	. WBCPRT	•	BRCPRT	•	RODY	•	COMP IX	
	2	FCR	. ISPAN	•	IF INR	•	ICRUDA	•	COMP 1X	2
	m	EXTMSH	. REMESH	•	IMAPP	•	YAW	•	COMF IX	
	•	IBUMP	. IVISC	•	ITWIST	•	1F01LT	•	COMF IX	•
	10	1800 IN	. AXISAM	•	AREA	•	TBLOUT		COMF 1X	
ISN 0013	COMMON / XYCOE /	(06.0E)X	. XIY(30,90)	:	XIX(30)	•			COMF 1X18	•
		XIVJ(30.90)		•	XX(30)	•			COMF 1X19	
	04	XINK (30,90)							COMF 1X20	
15N 0014	COMMON / WINGBC /	ZLM	. ZRWU	•	TW15T(30)	•			COMF 1X42	0
	-	WBCL (30,90)		•	WBCU (30 . 90)	60			COMF 1X43	
v									TCOEF 16	5
v									TCOEF !	
v									TCOEF !	
*	***** COMPUTE MACHIN DEPENDENT PARAMETERS	DEPENDENT	PARAMETERS	**	**********	*	********	*	TCOEF 19	
v									TCOEF 2	
0015	11	MACHINO							TCOEF 21	_
9100	11	S*MACHNO**E	4EXP(1)						TCOEF 2	01
0017	u								TCOEF 2	
910	11	1.)*.5*MACH	NO *MACHNO						TCOEF 24	
6100	11	ACHIND#MACHIN								
020	-									•
	COE = -2.0									
U									TCOEF 28	•
*	KI MODIFIED BY CORD	RD								
00 22										
0023									TCOEF 32	•
9200	#								TCOEF 33	
0025	H	*C1							TCOEF 34	_
9200	CK3(K) = A3								TCOEF 35	
0027	CK4(K) = -44								TCDEF 36	,
0028	CK51(K) = A5*C1								TCOEF 37	
020	10 CONTINUE								TCOEF 38	~
**	N XI INCREMENTS									
U									TCOEF 41	
0030	DO 15 J = 2.JMAX1									
0031	"	((1-C)1X - (								
0032	#	+1) - XI(J))							TCOEF 4	_
00 33	#	•	11)						TCOEF .	
0034	3									
									TCOEF A	•

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27 DIFFERENCE COEFFICIENTS FOR WING SURFACE BOUNDARY
                                                                                                                                                                                                                      XIVK(K.J) = (XIV(K.J) + XIV(K+1.J))*.5
XIVJ(K.J) = (XIV(K.J) + XIV(K.J+1))*.5
CK52(K.J) = A5*.5*XIC(J)/(CORD(K+1) + CORD(K))
                                                                                                                                                                                                                                                                                                                                       21 DIFFERENCE COEFFICIENTS FOR LEFT HAND SIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZLVU = DZ1/(ZT(LWINGU) - 70)
ZRVU = DZ1/(ZT(LWINGU+1) - ZT(LWINGU))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZCVU = 7LVV + ZRVU
ZO = .54(ZT(LWINGL+1) + ZT(LWINGL))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZO = .5*(ZT(LWINGU) + ZT(LWINGU-1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZA = .54(ZT(LWINGU+1) + ZT(LWINGU))
ZB = .54(ZT(LWINGU) + ZO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZA = .54(ZO + ZT(LWINGL))
ZB = .54(ZT(LWINGL) + ZT(LWINGL-1))
                                                                                                        ETAR(K) = 1./(ETA(K+1) - ETA(K))
ETAC(K) = 2./(ETA(K+1) - ETA(K-1))
                                                                                  ETAL(K) = 1./(ETA(K) - ETA(K-1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HZ = ZT(LWINGU+1) - ZT(LWINGU)

FRWU = 2./{H2*(H2 + 2.*H1)}

COEU = -2./(H2 + 2.*H1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HI = ZT(LWINGL) - ZT(LWINGL-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2C = 2./(2T(L+1) - 7T(L-1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZLWL = 2./(H1*(H1 + 2.*H2))
                                                                                                                                                                                                                                                                                                                                                                                                         Z_{\rm L} = 1.7(ZT(L) - ZT(L-1))

Z_{\rm R} = 1.7(ZT(L+1) - ZT(L))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                = 2./(H1 + 2.*H2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OLI(L) = 2C*(ZL + ZR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASSUMES WING AT Z=0.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           021 = 1./(ZA - ZB)
                                                                                                                                                                             DO 11 J = 1. JMAX1
                                                                                                                                                                                                                                                                                                                                                                                    DO 40 L = 2.LMAX1
                                                               DO 20 K = 2.KMAX1
                                                                                                                                                                                                  DO 11 K = 1 . KMAX1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HZ = -ZT(LWINGL)
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                   ETA INCREMENTS
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 05/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DJK6(K.J) = XIYJ(K.J-1)*XIYJ(K.J-1)*XIC(J)*XIL(J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DJKB(K.J) = CH*XIVK(K-1.J)*XIC(J)*ETAC(K)*CI*.25
DJK9(K.J) = CP*XIVK(K.J)*XIC(J)*ETAC(K)*CI*.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DJK7(K.J) = XIYJ(K.J)*XIYJ(K.J)*XIC(J)*XIR(J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SPECIAL COEFFICIENTS FOR WING ROOT BOUNDARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DJK4(K.J) = XIYJ(K.J-1)*.254XIC(J)*ETAC(K)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DJKS(K.J) = XIYJ(K.J)*.25*XIC(J)*ETAC(K)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D_{M}(K_0) = .254C14XIC(J)4ETAC(K)

D_{M}(K_0) = XIYJ(K_0J-1)4C14XIC(J)4XIL(J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DJK3 (K.J) = XIYJ(K.J) CI #XIC(J) #XIR(J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REMAINING RIGHT HAND SIDE COEFFICIENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DJK10(K,J) = CM+CI+FTAC(K)+ETAL(K)
DJK11(K,J) = CP+CI+ETAC(K)+ETAR(K)
                                                                                                                                                                                                                                                                                                               CREFFICIENTS FOR PXX - SUPERSONIC
                                                                                                                                  COEFFICIENTS FOR PXX - SUBSONIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QP = (COPO(K+1) + COPO(K))*.5

CM = (COPO(K) + COPO(K-1))*.5
                                                                                                                                                                                                                                                                                                                                                                                X132 = 10/(XI(J-1) - XI(J-2))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ETA32 = 1./(ETA(2) - ETA(1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C32 = (CORD(2) + CORD(1))*.5
                                                                                                                                                                                               DE1(J) = XIC(J)*XIL(J)
DE3(J) = XIC(J)*XIR(J)
DE2(J) = DE1(J) + DE3(J)
                                                                                                                                                                                                                                                                                                                                                                                                                         DH3(J) = XIC(J)*XIL(J)
DH2(J) = DH1(J) + DH3(J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MG(2) = XIC(2) *XIL(2)
                                                                                                                                                                                                                                                                                                                                                                                                      DH1(3) = XIC(3)*X132
                                             ZCVL = ZLVL + ZRVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DO 50 J = 2.JMAX1
                                                                                                                                                                              DO 30 J = 2, JMAX1
                                                                                                                                                                                                                                                                                                                                                             DO 35 J = 3. JMAXI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DO 60 J = 2. JMAX1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           = 1./CORD(1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OHE(2) = DH3(2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CI = 1./CORD(K)
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 TCOEF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DJK3(1,3) = 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DH1(2) = 0.0
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 LEVEL 2.2 (SEPT 76)
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LEVEL 2	2.2 (SEP	(SEPT 76)	TCOEF	05/360 FORTRAN H EXTENDED	DATE 77.295/15.22.51	PAGE
	115		DAK4(1.3) = 0.		TC0EF154	
	116		DJK5(1.3) = 0.		7C0EF155	
ISN 0	0117		DJK6(11.3) = 0.		TCOEF156	
	118		D.K7(1.J) = 0.		TCOEF157	
	119		DJK9(10.3) = C32*XIYK(10.	J) = C32+X1W(1,J)+,25+X1C(J)+C1+ETA32	TCDEF158	
	120		DJK8(11.3) = -DJK9(11.3)		TCOEF159	
	121		DJK10(1.3) = C324C14ETA324ETA32	32*ETA32	TCDE F160	
	122		D.K.11(1,3) = D.K.10(1,3)		TC0EF161	
	123	09	CONT INC.		TCOEF162	
		v			TC0E F163	
		**	SPECIAL DIFFERENCE COEF	DIFFERENCE COEFFICIENTS FOR DOWNSTREAM BOUNDARY	TCOEF164	
		v			TCOEF165	
	0124		ETAC(1) = FTAL(2)		TCDEF166	
	0125		1F (EXTMSH) GO TO 85		TCOEF167	
ISN 0	127		DK1(1) = C2+C32+C1+ETA32+ETAC(1)	2*ETAC(1)	TCOEFIGE	
	128		-		TCDEF169	
	0129		DK3(1) = DK1(1)		TCDEF170	
	130		DO 80 K = 2.KMAX1		TCOEFITI	
	131				TCOEF172	
	132			C2+(CORD(K) + CORD(K-1))+.5+CC+ETAL(K)+FTAC(K)	TC0EF173	
	133		DK3(K) = C2*(CORD(K+1) +	+ CORD(K))+.5+CC+ETAR(K)+ETAC(K)	TCOEF174	
	134		DK2(K) = DK1(K) + DK3(K)	日本ので とうのを関われる としてもののはいのとし	TC0EF175	
-	135	8	CONTINUE		TC0EF176	
ISN 0	136	85	S CONTINUE		TC0EF177	
		U			TC0EF178	
		***	**************************************	SENSESSES COEFFICIENTS FOR GAMMA INTERPOLATION ************************************	**************************************	
		v			TCOEF180	
*			COLL CALL DAVING			

40PTIONS IN EFFECT ANAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE)

CALL GCALC(1,PDUM) PETURN END

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TCOEF181 TCOEF182 TCOEF183 \*OPTIONS IN EFFECT\*SOURCE FECDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

2802, SUBPROGRAM NAME = TCOEF 138. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*

124K BYTES OF CORE NOT USED

DATE 77.295/15.23.06

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COMMON / LARGX / DC(20-20-30)				ME	COEFF	ICIEM	IS FOR	2	COMPLIE COEFFICIENTS FOR TRIDIAGONAL MATRIX ************************************	4	TRIX				TCOEFX
COMMON   EXTER   XILK(30)   TTARX (30)   T		J.			7 Je L	DE LEGIO	, ac a	1							TCOEFX
COMMON   EXTER   XILK(30)   XIXX(20)   XIXX(30)	5000 N				V Y 1	DAKI	1x(20.	30	•		DJK1X(20.3	00		•	COMP IXS
TILL(130)   XILX(130)   XIRX(130)   XIRX(130)   XIRX(130)	\$0 00 NS	2	NOWN	E	XTER /	XIE	(02)		ETAX(20)		ZTX(20)		KINKE 301	•	EXTER
2		-				XIC	(02)		XICX(30)		XIRX(30)		ETALX (30)	•	EXTER
A		2				ETAC	X(20)		ETARX(20)		XMINX		MAXX	•	EXTER
COMMON   INDEXX   JANXX   CALX   CA		•				YMA	×		ZMAXX		AM INX		ZMINX	•	FXTER
COMMON   INDEXX   JAAXX   CANAXX   CA		Charle of white				ZLW	×		ZPVLX		ZCM.X		Z-VUX	•	EXTER
COMMON   INDEXX   MAXX   KANAX   LHAXX   FUNTX		•				ZPW	X		ZCVUX						EXTER
CONTRING	5000 NS	8	NOWN	-	NDEXX	AM !	×		KMAXX		LMAXX		CTM1X	•	INDEXX
COMMON   PARM   A1		-				KT	×		KTIPIX		JEEX (20)		JTEX (20)	•	INDE XX
CAMMON   PARM   A1		2				LEN	×ns		LWNGLX		JMAXX1	•	CMAXX1	•	INDE XX
CANON   PARM   A1						LMA	CXI		KROOTX		XI dC				INDE XX
1	90 00 NS	8	NOWN	0		٧1			A2		A3		2	•	PAPM
CC2		•				AS			GAWMA		MACHNO		COE	•	PARM
CKA(30)   CKA(30)   CKA(30)   CKA(30)   CKZX(30)		2				2			EMEXP(2)		CK1(30)		CK2(30)	•	PARM
CKSZ(30,90)   CKIX(30)   CKZX(30)		n				CK3	(30)		CK4(30)		CK51(30)			•	COMP 1X1
SEAL   MACHINO   DE2X(30)   DE3X(30)   DH1X(30)		•				CKS	2(30.90	:			CK1X(30)		CK2X(30)	•	COMP IXE
Decoration   Dec		•				81.0			MCDE						COMP IXE
CDMMON / LCDX / DEIX(30)   DE3X(30)   DHIX(30)	2000 NS	F. F.	AL.			MAO	ONT								COMP TXT
1 DH2X(30) DH3X(30) TH3X(30) T	80 00 NS	8	NOW	1		DET	(130)		DE2X(30)		DE 3X (30)	-	3H1X(30)	•	rcox
2 DL3X(30) DL3X(30) DL3X(90) DL3X(90) DL3X(90) 0009 CDMMON / WING / YPODT		C - C - C - C - C - C - C - C - C - C -				DHS	((30)		DH3X(30)		OC 1X(30)	-	X-2x(30)	•	CCOX
COMMON   WING   VPOOT   XLEP   XTER   VTIP   VTIP   XLET   XTER   YTIP   XLET   XLET   XLET   XLET   XLET   XLET   XLET   XTER   YTER   XLET   XLET   XTER   XLET   XTER   XLET   XTER		2				013	(02)		DK1(90)		DK2(90)	-	X3(90)		CCOX
1	6000 NS	2	NOWN	*		YPO	11		XLEP		XTER		TIP .	•	WING
2 NALEI YLEI(10) . XLEI(10) . STRUE 3 NATEI . YTEI(10) . XTEI(10) . STRUE 4 COODT . SSPAN . THICK(II) . ZWGWL 5 NPOST . YTEI(10) . THETP(II) . NTWST 7 ZF(180.II) . KSWTHS(II) . NWLX(II) . XF(180.II). 8 XLEW(30) . COPD(30) . COPDW(30) . COPDIN(1I). 9 XLEW(30) . COPD(30) . COPDIN(1I) . XTEW(30) . XLE(30) . XLE(30) . XLEW(30) . XLE		-				XLF	_		XTET		SREF		SWEED	•	INDIX
## CROOT   STEPLINE		2				ME	No. of Street, or other Persons and Street, o		WE1(10)		XLE1(10)		STRUE	•	INDTX
CROOT SSPAN THICK(II) TWNGWL  SYMBAN THISTORY THE POILS		3				NTE	1		VTE1(10)		XTE1110)		SXPOS	•	THPTX
NPAN		•				CRO	11		SSPAN		THICK(11)		MONAL	•	I X L dNI
6 YTWST(11) - INUX(111) - MLX(111) - XF(1R0.111) - XF(1R0.		S				NPA	,		WEILL		THE TP(11)		TENT	•	AIRFOILS
T ZF(180*11)* KSWTHS(11)* XMCM * XLE(30) * XLE(30) * XLEW(30) * COPD(30) * COPDW(30) * COPDIN(11)* XTE(30) * COPDW(30) * COPDW(30) * COPDIN(11)* XTE(30) * RSO * NSO * NSO * NSO * NSO * NSO * XXO(12) * YXO(12) * YXI(12) * YXI(12) * XXO(12) * YXI(12) * YXI(1		•				YTE	ST(11)		INUX(11)		INLX (11)		GF(180.11	:	AIPFOILS
## XLEW(30) - COPD(30) - COPDW(30) - COPDIN(11) - COPDIN(11) - COPDIN(11) - COPDIN(12) - COPDIN(		7				ZF	110081		KSMTHS(11)		XMOM		(LE(30)	•	INDTX 11
A XTE(30) RFACT CMEAN XTEW(30) NSO		•				XLD	((30)		COPD (30)		COPD W(30)		COPDINCI	:	MING
A NSO . NSI . KXN(12) . KX1(12) .  B NX0(12) . NXI(12) . YXN(12-10) . YXI(12-10) .  C XX0(12-10) . XXI(12-10) . DXI(12) . DXI(12) .  D DXX0(12-10) . XXI(12-10) . DXII(12) . DXII(12) .  E NXIO(12) . DXII(12) . DXII(12) . DXII(12) .  CAV . XLEW(30) . XTEW(30) . CORDX .  G KSWICH . XOR . XLEW(30) . XTEW(30) .  C COMMUTE COEFFICIENTS USING A1.A2 ************************************		•				XTE	(30)		REACT		CMEAN		KTEW(30)	•	MING
B		•				NSO			NS1		KX0(12)		(X1112)	•	AIRFOILB
C XX0(12,10), XX1(12,10), DXP0(12) , DXR1(12) ,  D DXT0(12) , DXT1(12) , ALPHAW , NTPLE ,  E NTIPXI , XLEWX(30) , CORDX ,  F CAV , XOR , XLEWX(30) , XTEWP(30) ,  G KSWICH CAN , XOR , XLEWP(30) , XTEWP(30) ,  C CONSTITE COEFFICIENTS USING A1,A2 ************************************		8				CXN	(12)	•	NX1(12)		VX0(12-10)		rx1012.10	•	APREDIES
D DXTO(12) , DXTI(12) , ALPHAW , NTIPLE ,  E CAT , XLEWX(30) , XTEWX(30) , CORDX ,  F CAT , XOR , XLEWP(30) , XTEWP(30) ,  G CONSULE COEFFICIENTS USING A1,A2 ************************************		U				OXX	112.10	•	XX1(12,10)		DXR0 (12)		XR1(12)	•	ATPFOT 10
E NTIPXI , XLEWX(30) , YTEWX(30) , CORDX , F CAV , XDR , XLEWP(30) , CAPDX , G KSWICH C KSWICH C C C C C C C C C C C C C C C C C C		٥				DXT	12110		DXT1(12)		ALPHAW		MIPLE	•	AIRFOIL
F CAV , XDR , XLEWP(30) , XTEWP(30) , C KSWICH C C C C C C C C C C C C C C C C C C		u				1	1Xc	•	XLEWX (30)		XTEWX(30)		CORDX	•	CHORD
C CONTRACT COEFFICIENTS USING A1.A2 ************************************						3		•	XUK		XLEWP(30)		KTEWP (30)	•	VSCF X3
C COCCEPT COMPUTE COEFFICIENTS USING A1.A2 erothannelstranseratestranserates C C C C C C C C C C C C C C C C C C C		9				KSW	E								VSCF X3
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AUGUST - 1.5			COME		COEFF	ICIEN	rs usi	9	A1.42 ****	*	*******	*	*****		TCOE FX 14
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	Cathada XIIX INCXINING なるななるなななななななななななななななななななななななななななななななな	
		TCOEFX23
	DO 15 J = 2.JMAXX1	TCOEFX24
	ii	TCDEFX25
	XIRX(J) = 1./(XIEX(J+1) - XIEX(J))	TCOEFX26
	XICX(J) = 2./(XIEX(J+1) - XIEX(J-1))	TCOE FX27
	15 CONTINUE	TCOF FX28
ISN 0020	XICX(1) = XILX(2)	TCDEFX29
		TCOEFX30
	Ceesses FYAX INCREMENTS 在各种基础等的条件并是各种基础等的存储的基础的基础的非常的基础的	**************************************
	U	TCOEFX32
SN 0021	DO 20 K = 2.6MAXX1	TCOEFX33
	ETALX(K) = 1 -/(ETAX(K) - ETAX(K-1))	TCOEFX34
	ETARX(K) = 1./(ETAX(K+1) - FTAX(K))	TCOEFX35
15N 0024	= 2./(ETAX(K+1)	TCOEFX36
		TCOEFX37
ISN 0026	ETACK(1) = ETALX(2)	TCDEFX38
		TCOF FX39
	CAAAAAA ZIX DIFFFENCE COEFFICIENTS FOR LEFT HAND SIDE AAAAAAAA	***
SN 0027	00 40 L = 2 LMAXX1	TCOEFX42
ISN 0028	$Z_{L} = 1 \cdot /(27 \times (L) - 27 \times (L-1))$	TCDE FX43
	7R = 1.7(Z7X(L+1) - Z7X(L))	TCOEFX44
SN 0030	7C = 2.7(27x(L+1) - 27x(L-1))	TCOE FX+5
	DLIXEL) = ZC#ZL	TCDEFX46
	D(L2x(L) = 2C*(ZL + ZR)	TCOEFX47
		TCOEFX48
ISN 0034	b	TCDEFX49
		TCDEFXSO
	C***** SUBSONIC COEFFICIENTS FOR DXX *****************	**************************************
	U	TCOE FXS2
SN 0035	DO 30 J = 2.JMAXX1	TCOF FX53
	II	TCOE FXS4
	11	TCDEFXSS
15N 0038	DE2X(J) = DE1X(J) + DE3X(J)	TCDEFXS6
	30 CONT INJE	TCOEFX57
	U	TCDEFXSB
	C** SPECIAL COEFFICIENTS FOR TREFFTZ PLANE AT ZTX=LWNGLX	TCDEFXSO
	C	TCOEFXED
	U	TCOEFX61
15N 0040		TCOEFX62
	ZA = .5+(ZTX(LWNGUX+1) + ZTX(LWNGUX))	TCOEFX63
	ZB = .54(ZTX(LWNGUX) + 70)	TCOE FX64
SN 0043	DZ1 = 1./(ZA - ZB)	TCOEFX65
	ZLVUX = DZ1/(ZTX(LWNGUX) - 70)	TCDEFX66
	11	TCDEFX67
15N 0046	ZCVUX = ZLVUX + ZRVUX	TCOEFX68

-	EVEL	LEVEL 2.2	(SEPT 76)	TCDEFX	DS/360 FORTRAN H EXTENDED	DATE 77.295/15.23.06	PAGE
	ISN	900		ZA = .54(ZO + ZTX(LWNGLX	•	TCOEFX70	
	ISN			ZB = .54(ZTX(LWNGLX) + ZTX(LWNG.X-1))	TX(LWNG.X-1))	TC0EFX71	
	ISN			021 = 1./(ZA - ZB)		TCOEFX72	
	ISN	0051		ALVEX = DZ1/(ZTX(LWNGLX)	- ZTX (LWNGLX-1))	TC0E-X73	
	ISN			ZRVLX = DZ1/(Z0 - ZTX(LWNGLX))	INGLX))	TCDEFX74	
	ISN			ZCVLX = ZLVLX + ZRVLX		TCOEFX75	
			U			TC0EFX76	
			v			TCOEFX77	
			C*****	** SUPERSONIC COEFFICIEN	SUPERSONIC COEFFICIENTS FOR PXX ***************	**************************************	
			v			TCDEFX79	
	ISN	0054		NO 35 J = 3. JMAXX1		TCOEFXBO	
	ISN	9500		(HIX(J) = XICX(J)*XILX(J-1)	=======================================	1COEFX81	
	ISN			11	-	TCDEFXA2	
	ISN			15		TCOE FXR3	
	ISN		35	CONT INJE		TCOEFX84	
	ISN	6500		DH1X(2) = 0.0		TCOEFX85	
	ISN			CHBX(2) = XICX(2)+XILX(2)	•	TCOEFX86	
	ISN			11		TCOEFX87	
		1	U			TCOEFX88	
			C****	*** REMAINING RIGHT HAND	NING RIGHT HAND SIDE COEFFICIENTS ************	**************************************	
			v			TCDE FX90	
	ISN	0062		DO 50 J = 2. JMAXX1		TCOEFX91	
	ISN	0063		DO 50 K = 2.KMAXXI		TCOEFX92	
	ISN	1000		DJK1X(K.J) = .25*CI*ETACX(K)*XICX(J)	X(K)*XICX(J)	TCDEFX93	
	ISN	9900		DJK 10X(K.J) = ETACX(K) *ETALX(K)	(TALXEK)	TCOEFX94	
	ISN			DJK11X(K,J) = ETACX(K)*E	TARX(K)	TCOE FX95	
	ISN		20	CONT INCE		TCOEFX96	
			U			TCOE FX97	
			Casses	C****** SPECIAL COEFFICIENTS	AL CDEFFICIENTS FOR WING ROOT BOUNDARY ***********	**************************************	
7			v			TCDE FX99	
4	ISN	9900		DO 60 J = 2. JMAXX1		TCOEFIOO	
	ISN	6900		DJK1X(1,J) = 0.		TCDEF101	
	ISN	15N 0070		DJK10X(1,J) = ETALX(2)*ETALX(2)	TALX(?)	TCOEF102	
	ISN	0071	09	60 DJK11X(1.J) = DJK10X(1.J)		TCOEF103	

DO 60 J = 2.JMAXXI  DJK1X(1.J) = 0.  DJK1X(1.J) = 0.  DJK10X(1.J) = 0.  DJK10X(1.J) = 0.  DJK10X(1.J) = 0.  DJK10X(1.J) = 0.  Commission of Cofficial Transfer Cofficial Transfer Cofficial Transfer Cofficial Transfer Cofficial Transfer Cofficial Transfer Cofficial Co																	
DO 60 J = 2.JMAXXI DJKIX(1.J) = 0. DJKIX(1.J) = 0. DJKIX(1.J) = ETALX(2)#ETALX(2) 60 DJKIIX(1.J) = DJKIOX(1.J)  ***********************************	TCDEF100	TCDEFIOL	TCDEF102	TCDEF103	TCDE F104	********TCDE F105	TCDEF106	TCDEF107	TCOEFIOS	TCDEF109	TCDEF110	TCOEF111	TCDEF112	TC0EF113	TCOEF114	TCOEF115	TCOEF116
DO 60 J = 2.JMAXXI DJKIX(1.J) = 0. DJKIX(1.J) = 0. DJKIOX(1.J) = ETALX(2)*ETALX(2) 60 DJKIIX(1.J) = DJKIOX(1.J) 60 DJKIIX(1.J) = DJKIOX(1.J) 60 DJKIIX(1.J) = DJKIOX(1.J) 60 DKI(1) = C2*ETALX(2)*ETALX(2) 60 DKI(1) = C2*ETALX(2)*ETALX(2) 60 DKI(1) = C2*ETALX(2)*ETALX(2) 60 DKI(1) = C2*ETALX(1) 60 BK = 2.*MAXXI 60 BK = 2.*MAXXI 60 BKI(1) = C2*ETARX(1)						BOUNDARY											
DO 60 J = 2.JMAXXI DJK1X(1.J) = 0. DJK10X(1.J) = 0. DJK10X(1.J) = ETALX(2)#ETALX(2) 60 DJK11X(1.J) = DJK10X(1.J)  DK1(1) = C2#ETALX(2)#ETALX(2) DK2(1) = DK1(1)#2. DK3(1) = DK1(1)#2. DK3(1) = DK1(1) DO 80 K = 2.KMAXXI DK1(K) = C2#ETALX(K)#ETACX(K) DK3(K) = C2#ETARX(K)#ETACX(K) DK3(K) = C2#ETARX(K)#ETACX(K) DK2(K) = DK1(K) + DK3(K) ENG(K) = DK1(K) + DK3(K) END						DOWNSTREAM											
	00 60 J = 2. JMAXXI	DJK1X(1,J) = 0.	DJK10X(1,J) = ETALX(2) *ETALX(2)	60 DJK11X(1.J) = DJK10X(1.J)		**** SPECIAL DIFFERENCE COEFFICIENTS FO		DK1(1) = C2*ETALX(2)*ETALX(2)	DK2(1) = DK1(1)*2.	DK3(1) = DK1(1)	DO 80 K = 2 KMAXXI	DK1(K) = C2*ETALX(K)*ETACX(K)	DK3(K) = C2*ETARX(K)*ETACX(K)	DK2(K) = DK1(K) + DK3(K)	80 CONTINUE	RETURN	END
	_	_	_	-				_	_	-		_	_	_	_	-	_
15N 0069 15N 0070 15N 0070 15N 0070 15N 0073 15N 0073 15N 0070 15N 0080 15N 0080	74																

\*OPTIONS IN EFFECT \*NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

80. PROGRAM SIZE =

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\*STATISTICS\*

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NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOWAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(I) DUMP OPTIONS IN EFFECT

16W AAA	TI NO GET	MINSON SMITH OF IS	,							33	MECHAN	
										3	MESH	. *
		PATEDON	ATTON	SEADCHE	AND STORES THE POPULATION SEADCHES AND STORES	C MECL	WESH INDEX   OCATIONS	1000	TONS	*****	NEWS	
		INIERPOR		SEARCHE	S AND SILME	S ME ST	T INDEA	-	CMIT			
	v									-	ML SH IN	
15N 0003	COMMON	COMMON / MESHCO	/ JEXI	JEX (30 .90).	KEX (30)	. LEX(20)	50)	. DXEX	DXEX (30.90)	30 . ME	. MESHCO	^
	-		DYEX (30)	(30)	DZEX (20)	. KING	KIN(30)	. JINK	JINK ( 20 . 30 ) . MESHCO	3) . ME	SHO	3
	2		LIN(20)	. (02	DY IN (30)	. DZ IN	DZ IN(20)	. KINB	KINB(20)	· ME	WESHOD !	
	n		DY IN	DY INB(20) .	LINE(20)	. DZ IA	02 INB(20)	. JINA	JINB(20)	· ME	WESH @	2
			JINK	JINKM1 (20,30)	6)	. KEXE	KE XB (30)	. LFXR	LFXB(20)	00 .	COMP IX	~
	5		DVEX	DYEXB(30) .	DZFXB(20)	. JCDN		. JCUP		ME	MESHOD	
1SN 0004	COMMON / INTER	/ INTER /	(06)1X	. (0	ETA(30)	. ZT(20)	(02	. XIN(90)	100		INTER	2
			X11.(90)	. (06	X1C(90)	. XIR(90)	100	. ETAL	ETAL(30)	. In	INTER	
	2		FTAC (30)	(30)	FTAR (30)	· COEU	•	· COEL		. In	INTER	•
	3		ZCAU	•	24	· ZRW		· xx		. 18	INTER	2
	•		POUM (30)	(30)	FDUM(30)	. XMTN	,	. XMAX			PNTER	•
	vr		WAX		ZMAX	NI WAY		ZWIN.		18	INTER	1
			ZW		ZPVU					. Z	INTER	•
15N 0005	COMMON	/ FXTFP	XIFX(30)	(30)	FTAX (20)	. 77 x	77 X ( 20 )	KINX	XINX (30)	i.	FXTER	
	•		XIEX (30)	(30)	X1CX (30)	Kalx .	XIDX (30)	FTAI	FTAL X (30)	F.	FXTED	
	. 2		ETAC	ETACX(20) .	ETARX(20)	XMINX .	×	. XMAXX	*		EXTER	
			YMAXX	. ×	ZMAXX	* YMINX	×	. ZMINX	×		EXTER	
	•		ZWX		ZRVLX	· ZCVLX	*	· AVIX	*	. A	EXTER	9
	2		ZRWIX	· ×	ZCNUX					EX	EXTER	
15N 0006	COMMON /	/ INDEX /	SMAX	•	KMAX	. LMAX		. KTM1		. 34	PNDEX	•
	-		KTIP		KT1P1	. JWLE		. AE(30)	301		THIDEX	
	8		SWIE	•	JTE (30)	. LWING	16.	. LWINGU	GU US	. 18	INDEX	
			SMAX !		KMAXI	. LMAX1		. KR007	+	. 50	COMP 1X	
			195							IN	INDEX	•
15N 0007	COMMON	COMMON / INDEXX	/ JWAXX	. ×	KMAXX	. LMAXX	×	. KTM1X	×	- 4	THOE XX	•
	•		KT JPX	. ×	KTIPIX	· JLF)	JLFX (20)	· STEX	JEX (20)	. 17	INDEXX	3
	2		LWINGUX	· ×5	LWNGLX	. JMAXXI	CXI	. KMAXXI	x1	. 18	INDE XX	
	3		LMAXXI	. IX	KROOTX	. JPIX	,			1	INDEX	•
15N 0008	COMMON	COMMON / XYCOE /		*(30,90) .	X1Y(30,90)	• XIX(30)	(30)			5	COMF 1X18	•
	•		XIX	KIYJ(30,90)		• XX(30)	103			5	COMF TX19	•
	c,		XIX	XINK (30,90)						5	COMF IX2	•
15N 0009	COMMUN /	/ FLAGS /	YSIGI .	•	ISAVE	. IPLUT	11	. MSHINT	H	. F.	FLAGS	•
	•		SOLV	•	MECPRT	. HACPRI	'RT	· BODY		. 1	FLAGS	3
	2		FCP	•	ISPAN	. IF INR	4	· ICRUDE	00	· IN	INPTX	-
	3		EXTMSH	SH .	REMESH	. IMAPR	ď	. YAW			INPTX	•
	•		IRIMP	•	IVISC	. ITWIST	IST	· IFOILT	5		INPTX	
	2		IBODIN	IN .	AXISAM	. ARFA		· IBLOUT	5	IN	INPTX	
15N 0010	LOGICAL		TOTSK	•	ISAVE	· IPLOT	11	. MSHINT	IN		COMPIX	
	-		SOLV	•	WACPRT	. BBCPRT	PRT	. BODY		00 .	COMP IX	•
	2		FCP	•	ISPAN	. IF INE	in an	· ICPUDE	DR	00 .	COMF 1X	2
	3		EXTMSH	· HS	REMESH	. IMAPR	ď	. YAW		00 .	COMP IX	
			IRIMP	•	IVISC	. ITWIST	IST	· IFOILT	11		COMP TX	
	2		IBUDIN		AXISYM	. ARFA		. IBLOUT	15		COMP IX	•
15N 0011	COMMON	COMMON / BODY1 /	XNOSE	•	XTAIL	. NB IN (2)	1(2)	. XBIN	XB1N(2,35)		BODY	<b>A</b> 1

State   Stat			JTAIL KBWX(90) BFK(15) CFL(15)	. ALPHAR	( NBPTS(90)	. 4(90)	AUUN -
### ##################################			KBMX(90) BFK(15) CFL(15)	· CAN			
### ##################################			BFK(15) CFL(15)	CERTISI	LMX.	. AFK(15)	. BODV
CELLED   CELLED   CELLED   CELLED			CFL(15)	10000	. AFL(15)	. BFL(15)	. 800v
CONTRINCES   COLL(Z)   CRUE(Z)   CRUE(Z)				. ABL(15) .	. BBL(15)	. CBL(15)	. BODV
New York		The state of the s	ACE(2)	, BCL(2)	, CCL(2)	. BIYPE	. BODY
0012 COMMON / FODV2 / FX130,901 PT(130,901) PT(120,901) PT(130,901) PT(130,901			XPRU(90)	. XPHL(90)	DZPBU(90)	. DZRBL (90)	. CHENI
A		8	NRFRU	. NPBL	. YRB	. ZRBU	
COMMON   FODV2   FX130,901   FY130,901   FY130,901		•	ZRFR	. KBMXX(30)	JNOSEX	. STAILX	· BODV
0012 CCMMCN / RODYZ / FY(30,90) , FY(30,90) , FY(30,90) , LBU(70,90) ,		*	RB IN (2,35)		XTAILX	. YOB	FIXCYA
NEWFSK130, DEDUZ   LEUK(20,90), LEU(20,90), LEU(20,90), NEWFSK130, DEDUZ   CS(20,90), LEUK(20,30)   CS(20,90), LEUK(20,30)   CS(20,90), LEUK(20,30)   CS(20,90), LEUK(20,30)   CS(20,90), LEUK(20,30)   CS(20,90), LEUK(20,30)   CS(20,90)   CS(20,9	N 0012	COMMON / RODV2			. FZ (30,90)		. COMF 1X
2		-	KBITD (30,90		LBU(20.90)		
### COMMON   DODY   COMMON   C		~	NBPTSX(30)				COMPEX
### ### ### ##########################		n	LBUX (20,30	The state of the s	. LBDX (20 .30	•	. COMF IX
COMMON / DODY3 / KGWAX   CLBUX   CLB			FYX(20,30)				COMP 3X
LLERX	N 0013	COMMON / BODY3		. KBMAXX .	, LLBL.		
######################################			LLBLX	· LLBUX .	, RBCU (30 .90	•	. COMP EX
### PROUKTOR 0, 90 PR		2	KBS	. PRCL (30.90)		•	COMPIX
SALPH(10)   SALPH(10)   SALPH(10)			RBCUX ( 20 .3	. (0)	, RBCLX(20,3	(0)	. COMPIX
SALPHK130			DRACU	. DRPCL .	PRBCUX	. DRRCLX	. COMF IX
CONTRICTOR OF COMMON / BODYBC / TRUE		ıc	SALPH(90)	. SALPHX (30)			COMPIX
Cassasses Determine Indices of Coapse Wesh Points Surgnumbing a Given ***  Cassasses Fire Wesh Point. Used in Interpolating PHI ON Fine Wesh ***  Cassasses Boundaries assasses**  Cassasses Boundaries Boundaries assasses**  O015  O015  O016  D01	N 0014		/ IBUD	· IBLD .	1BS1DF	. ETABU(10)	. COMF IX
C. C		-	ETABL( 10)	7BOD (20)		. XRRS(100)	COMFIX
Cessesses INTERIOR MESH IS TRANSFORMED  C  TO 1 J = 1, JMAX  0016  DO 1 K = 1, KMAX  0017  DO 2 JX = 2, JMAXX  0018  2 CONTINE  0020  JX = JMAXX  0021  JE (X(K,J) -LT. XX(JX)) GO TO 3  0021  JEX(K,J) = JX  0023  DXEX(K,J) = JX  0024  C  DO 5 K = 1, KMAX  0024  C  DO 5 K = 1, KMAX  0026  C  DO 6 KX = 2, KMAXX  0027  IF (ETA(K) -LT. ETAX(KX)) GO TO T  0029  C CONTINUE  0031  T KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX-1))  C  0031  T KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX-1))  C  0033  C  DO 9 L = 1, LWINGL  0034  F (ZT(L) -LT. ZTX(LX)) GO TO 11			10R MESH 15 R	ECTANGULAP		LC HE ON	##WESH IN
C DO 1 J = 1.JMAX  0016			TOO MESH 15 1	PANSEDBMED			WECH TH
0015 DO 1 J = 1.5 JMAX 0016 DO 1 K = 1.5 KMAX 0017 DO 2 JX = 2.5 JMAXX 0028 2 CONTINUE 0021 JX = JMAXX 0023 JEX(K.J) = LT. XX(JX) GD TD 3 0024 C DO 5 K = 1.5 KMAX 0025 DO 6 KX = 2.5 KMAXX 0026 DO 6 KX = 2.5 KMAXX 0027 IF (ETA(K) - LT. ETAX(KX) GD TD T 0028 KX = KAXXX 0031 T KEX(K) = KX 0032 C DO 9 L = 1.5 LWINGL 0033 C DO 9 L = 1.5 LWINGL 0034 F (ZT(L) - LT. ZTX(LX) GD TD 11							MESHIN
0016		8015=					MESHIN
0017		1 00					PESHIN
0018		8	X				MESH IN
0020 2 CDNTINAE 0021 JX = JMAXX 0022 3 JEX(K,J) = JX 0023 PXEX(K,J) = JX 0024 1 CDNTINAE 0024 C DO 5 K = 1,KMAX 0025 PO 6 KX = 2,KMAXX 0027 IF (FTAK) -LT - FTAX(KX) GO TO T 0029 6 CDNTINAE 0030 7 KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX) - ETAX(KX-1)) 0031 7 KEX(K) = KX 0031 7 KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX) - ETAX(KX-1)) 0032 C DO 9 L = 1,LWINGL 0033 C DO 9 L = 1,LWINGL 0034 F (ZT(L) -LT - ZTX(LX) GO TO 11		JF.	T 09 ((Xr)XX				PESHIN
0021 3 JEX(K.J) = JX 0022 3 JEX(K.J) = JX 0023 0024 1 CONTINUE 0025 C DO 5 K = 1.KMAX 0027 1 F (ETAK) .LT. ETAX(KX)) GO TO 7 0030 KX = KMAXX 0031 7 KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX-1)) 0032 C DO 9 L = 1.LWINGL 0033 C DO 9 L = 1.LWINGL 0034 F (ZT(L) .LT. ZTX(LX) GO TO 11		2					MESH IN
0022 3 JEX(K,J) = JX 0023 DXEX(K,J) = (X(K,J) - XX(JX-1))/(XX(JX) - XX(JX-1)) 0024 1 CONTINUE C DG 5 K = 1,KMAX 0025 DG 6 KX = 2,KMAXX 0027 1F (ETA(K) -LT, ETAX(KX)) GG TG 7 6 CONTINUE 0030 KX = KMAXX 0031 7 KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX) - ETAX(KX-1)) 0032 CONTINUE 0033 5 CONTINUE C DD 9 L = 1,LWINGL 0034 FG (ZY(L) -LT, ZYX(LX)) GG TG 11		4					MESHIN
0023		3 JEX(K.J) =					MESH
0024 1 CONTINUE  0025 DO 5 K = 1.6KMAX  0026 DO 6 KX = 2.6KMAX  0027 DO 6 KX = 2.6KMAX  0027 IF (FTA(K) .LT. FTAX(KX)) GO TO T  6 CONTINUE  0030 T REX(K) = (FTA(K) - FTAX(KX-1))/(FTAX(KX-1))  0031 T REX(K) = (FTA(K) - FTAX(KX-1))/(FTAX(KX-1))  0032 CONTINUE  0033 C CONTINUE  0034 DO 9 L = 1.6LWINGL  0035 IF (ZT(L) .LT. ZTX(LX)) GO TO 11		DYFY (K. (1) =	1	. Tribery or .			
C DO 5 K = 1,6 KMAX  0026		1 CONTINUE		1001001111			MESHIN
00.25 DO 5 K = 1.4KMAX 00.26 DO 6 KX = 2.4KMAXX 00.27 IF (ETAKK) .LT. ETAX(KX)) GO TO 7 00.29 C CONTINUE 00.30 T KEX(K) = KX 00.31 T KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX) - ETAX(KX-1)) 00.32 C DYEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX) - ETAX(KX-1)) 00.33 C DO 9 L = 1.4LWINGL 00.34 DO 10 LX = 2.4LWINGLX 00.35 IF (ZT(L) .LT. ZTX(LX)) GO TO 11		0					MESHIN
0026		8					MESHIN
0027 IF (ETA(K) -LT. ETAX(KX)) GO TO 7 0029 6 CONTINUE 0030 KX = KMAXX 0031 7 KEX(K) = KX 0031 7 KEX(K) = (ETA(K) - FTAX(KX-1))/(ETAX(KX) - ETAX(KX-1)) 0033 5 CONTINUE 0034 CD 9 L = 1.LWINGL 0035 PO 10 LX = 2.LWINGL 0035 IF (ZT(L) -LT. ZTX(LX)) GO TO 11		8	×				MESH
0029 6 CONTINUE 0030		IF (FTA(K)	FTAX (KX)) GO	7 07			WESHIN
0030		6 CONT INUE					MESH
0031		X					MEGH
0032							-
0033 S CONTINUE 0034 C DD 9 L = 1.LWINGL 0035 PF (ZT(L) .LT. ZTX(LX)) GO TO 11		TAREA (K.)	- 1	TANKET STATE			TI LESUIT
00.34 C DD 9 L = 1.LWINGL 00.35 PO 10 LX = 2.LWINGLX 00.35 IF (ZT(L) .LT. ZTX(LX)) GO TO 11		TAIN THE STATE OF		TING TELEVIEW	1		MESH IN
0034 DD 9 L = 1. LWINGL 0035 PD 10 LX = 2. LWNGLX 0035 IF (ZT(L) . LT. ZTX(LX)) GO TO 11							MESHIN
0035 PO 1 = 1.LWINGL 0035 PO 10 LX = 2.LWNGLX 0036 IF (ZT(L) .LT. ZTX(LX)) GO TO 11			The state of the state of				MESHIN
00.35 IF (ZT(L) -LT - ZY(LX)) GO TO 11		= 7 6 00	5				MESHIN
0036 IF (ZT(L) -LT. ZTX(LX)) on TO 11		" X7 01 0u	MGLX				MESHIN
		IF (2T(L)	ZTX(LX)) GO 1	11 0			MESHIN

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DATE 77.295/15.23.15
                                                                                                                                                                                                                                                                                           MESH 1126
MESH 1127
                  MESH IN97
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                                                                                   1104
                                                                                                              WESH 1107
                                                                                                                                         MESH 7110
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                                                                                                                                                                                                WESH 1116
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                                              MESH 1100
                                                       MESH 1101
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                                                                                           WESH !
                                                                                   MESHI
                                                                                                                                                                                                                                                                 DYINB(KROOTX) = (ETAK(KROOTX) - ETA(KK-1))/{ETA(KK) - ETA(KK-1))
                                                                                                             C****** DETERMINE LOCATION OF BODY IN COARSE MESH *****
OS/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                                   DZINICX) = (ZTX(LX) - ZT(L-1))/(ZT(L) - ZT(L-1))
                                                                                                                               C****** INFINITE RECTANGULAR BODY WITH CONSTANT SIDES
                                                                                                                                                                                                                           (ETA(KK-1) .GE. ETAX(KROOTX)) GO TO 72
                                                                                                                                                                                                                                                                                                                                                                              1F (2TX(LX) .LT. ZT(L)) GO TO 63
                                                                                          IF (KX .GT. KROOTX) GO TO 50
                                                                                                                                                  JF (KX .EQ. KRODTX) GO TO 70
                                                                                  1F ( .NOT. BODY) GO TO 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IF ( .NOT. BODY) RETURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C****** BIDY TIP AND BOTTOM
                                                                                                                                                                                       C******* BODY SIDE LOCATION
                          JINK (KK .NE. K) GO TO
                                                                                                                                                                    DYINB(KX) = DYIN(KX)
                                                                                                                                                           KINB(KX) = KIN(KX)
                                                                                                                                                                                                                                                                                                                                                            00 64 LX = L13,L2X
                                                               JINKHI (KX.JX) = J
                                                                                                                                                                                                                                                                                                                                                    DO 65 KOUNT = 1,2
                                                                                                                                                                                                                                                       72 KINB (KROOTX) = KK
                                                                                                                                                                                                                                                                                                                                                                                                                                      LI = LWINGU + 1
MESHIN
                                                                                                                                                                                                                  = KROOT + 1
                                                                                                                                                                                                                                                                                                                                          L2X = LWNGLX
                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIX = LWNGUX
                                                                                                                                                                                                                                     = KK + 1
                                                                                                                                                                                                                                                                                                                                                                                                          63 LIN(LX) = L
                                             KK = KK - 1
                                                                                                                                                                                                                                                                                                     LX = LINGLX
                                                                                                                                                                                                                                                                                                                        = LWING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LZX = LMAXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                L2 = LMAX
                                                                         CONTINUE
                                                                                                                                                                                                                                                                                                                                                                                                                             CONT INCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CONTINUE
                 J = JMAX
                                                      GO TO 44
                                                                                                                                                                              GO TO 50
                                                                                                                                                                                                                                              CO TO 71
                                                                                                                                                                                                                                                                         SO CONTINUE
80 CONTINUE
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(SEPT 76)
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                                                                                                                                                                                                                                                                                                                                                                                                                                               0121
LEVEL 2.2
                 ISN ISN
                                                                                                                                                                                                                                                                                                    ISN ISN ISN
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		MESH 1150
,	L = 2	MESH 1151
	L2 = LLRL	MESH 1152
	LX = LLBLX	MESH 1153
	DO 96" KOUNT = 1,2	MESHIISA
	00 82 L = L1,L2	MESHI155
	IF (ZTX(LX) .LT. ZT(L)) GO TO 81	MESH1156
	82 CONTINUE	MESH 1157
	<b>L</b> = 12	MESH 1158
	81 LINB(LX) = L	MESH 1159
	DZINB(LX) = (ZTX(LX) - ZT(L-1))/(ZT(L) - ZT(L-1))	MESH 1160
	LX = LLRIX	MESH 1161
	L1 = LLBU + 1	MESH 1162
	L2 = LMAX	MESH 1163
	90 CONTINUE	MESH 1164
	RETURN	MESH 1165
	END	MESH 1166

15N 0129 15N 0129 15N 0130 15N 0131 15N 0135 15N 0136 15N 0136 15N 0136 15N 0140 15N 0141 15N 0142

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TEPM FLAG(1) DUMP

2662, SUBPROGRAM NAME =MESHIN 142. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT I STICS \*

DIAGNOSTICS GENERATED ç #STATISTICS#

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

132K BYTES OF COPE NOT USED

80

REGUESTED OPTIONS OPTER NOMAP

COMMON ALVIX DAUGO) DUALGOO SUUMS(90) DUALGOO SUUMS(90) OF THEORY DIALGOO SUUMS(90) OF THEORY OF THEORY DIALGOO SUUMS(90) OF THEORY OF THEORY DIALGOO SUUMS(90) OF THEORY OF THEORY OF THEORY DIALGOO SUUMS(90) OF THEORY OF	ISN 0002	SUBROUTINE WINGCO							WINGOD 2
COMMON ALEVIX DXU(90) DXU(90) XDUM5(90) XDUM2(90) DIMENSION DYR(180) DYU(90) DYU(90) OT(180) OUT(180)		C***** WINGCO GENERATE	S WING BOX	MDARY COND	E	****** SNC	********	:	
1	0003	COMMON A FVIX	DXIII OO 1	, DX1 (90)	•	XDIM (90)	- XDIIM269	6	WINGCO S
DIMENSION   DYR(180)   OR(180)   OR(180)			XDUM3(90)		•	XDUM5(90)			LEVIX 3
DIMENSION   D72K(180)   07K(180)   07K(180		2	XDUM6 ( 200)						LEVIX 4
COMMON / WINGX / WECUDR (30.90)   DOZIGO)   DO	0000	DIMENSION	D7R(180)	• DZT(180)	•	08(180)			COMF 1133
COMMON / WINGX / WECLORE(30.00)  COMMON / INTER / X1000) : ETA(30) : T7(20) : X1N(90) : ETA(30)		The parties of section of	W. (00)	100711200	•	2021 (90.1	100100		COME 1134
COMMON / INTER / XITGOD) - ETA(30) - TT(20) - XIR(90) - TTAL(30) - ETA(30) - TAL(30) - ETA(30) - TAL(30) - ETA(30) - TAL(30) - ETA(30) - TAL(30) - TAL(3	9000	AON / WINGX	WECJOR (30	106	• •	WACLOR (30	106		COMF 1107
COMMON   INTER   XI[690]   FTA[30]   XTR[20]   XTR(190]     2		U							WINGED 8
1	9000	/ INTER	XI(90)	. ETA(30)	•	27 (20)	. XIN(90)		INTER 2
2		•	X1E(90)	. XIC(00)	•	X18(90)	. ETAL (30	•	INTER 3
3 CCWI		2	ETAC(30)	. ETAR(30)	•	COEU	· COEL		INTER 4
4 POLMÉ(30) - EDUMÉ(30) - XM IN XM XX 5 ZLVU COMMON / YAWOPT / KIX CXX CXX CXX CXX CXX CXX CXX CXX CXX C		3	ZCMO	• ZLVL	•	ZRVL	• 2CVL		INTER 5
S			PD(M(30)	. EDUM(30)	•	XW IN	. XMAX	•	INTER 6
COMMON / YAWOPT / KIX		•	YMAX	. ZMAX	•	VMIN	. ZMIN	•	INTER 7
COMMON / YAWOPT / KIX		•	ZI.W.	· ZRVU					INTER 8
1	1000		K1X	. K2X	•	K3X	. K4X	•	COMP IX87
2			KSX	• K6X	•	K7X	• K8X	•	COMF TX88
COMMON   INDEX   JMAX   KMAX   LMAX   KTM1			KPIX	. KMIX					COMF IX89
1 JWTE , JTE(30) , LWINGL , LWINGU , JWTE , JTE(30) , LWINGL , LWINGU , JWTE , JTE(30) , LWINGL , LWINGU , LWINGU , JWTE , JPI	8000	INDEX	JMAX	. KMAX	•	LMAX	. KTM1	•	INDEX 2
2 JWATE - JTE (30) - LWINGL - LWINGU - LWINGU - JPA - JP1 - KMAX1 - KMAX1 - KMAX1 - KMOT - KROOT - JP1 - JP1 - JP1 - JP1 - JP1 - KMAX1 - JP1 - KROOT - JP1 -			KTJP	. KTIP1	•	JWLE	. LE(30)		INDEX 3
3 JMAX1		2	JWTE	• JTE(30)	•	LW INGL	. LWINGU	•	INDEX 4
### COMMON / FLAGS / ID15K		n	JMAX1	. KMAX1	•	LMAX1		•	COMP IX 1
COMMON / FLAGS / ID/SK , ISAVE , IPLUT , MSHINT , SOLV , WRCDET , BRCPRT , BRDDY , ISPAN , IFINR , ICRUDR , ISPAN , IFINR , ICRUDR , IFINR , ICRUDR , IFINR , ICRUDR , IFINR , IRPLIT , IRCUDR , ISPAN , IFINR , IRCUDR , ISPAN , IFINR , ICRUDR , ISPAN , IFINR , ICRUDR , ICRUD		•	JP1						INDEX 6
1	6000		IDISK	. ISAVE	•	IPLOT	. MSHINT	•	FLAGS 2
STANSH   S			SOLV	. WACPRT	•	BRCPRT	· BODY	•	FLAGS 3
3 EXTMSH		2	FCP	. ISPAN	•	IF INR	. ICRUDA	•	INPTX 1
SOLVE   SOLV		3	EXTMSH	. PEMESH	•	IMAPP	. YAW	•	INPTX 2
LDGICAL   IBRDIN   AXISYM   AREA   BLOUT		•	IRUMP	. 1V1SC	•	ITWIST	. IFOILT	•	INPTX 3
LOGICAL IDISK : ISAVE : IPLUT : MSHINT : SOLV : WHCPRT : FRCPRT : BODY : FCP : ISPAN : IFINR : ICRUDR : TRUDR : TRUDR : YAW : FCM : IBUMP : VISC : ITWIST : IFOILT : FOILT : IGODIN : AXISYM : AREA : IBLOUT : COMMON / PARM / AI : A2 : A3 : A4 : IBLOUT : C2 : EMEXP(2) : CKI(30) : CK2(30) : CK3(30)		'n	IBODIN	. AXISYM	•	AREA	. IBLOUT		INPTX 4
1 SOLV WHCPRT BRCPRT BODY 2 FCP ISPAN IFINR ICRUDR 3 EXTWSH PEWESH IMAPP ICRUDR 4 IBUMP IVISC ITWIST FOILT 5 IBUDIN AZ AZ AZ A4 1 AS GAWWA WACHNO COE 2 CZ EMEXP(2) CK1(30) CK2(30) CK	00 10	LDGTCAL	TOTSK	. ISAVE	•	IPLOT	. MSHINT	•	COMP IX 4
2		-	SOLV	. WHCPRT	•	RACPRT	. BODY	•	COMP IX 5
3 EXTMSH , REMESH , IMAPR , YAW , IBUMP , IVISC , ITWIST , IFCILT , IBCOMMON / PARM / A1 , A2 , A3 , A4 , A5 , GAWMA , MACHNO , COE , CA3(30) , CK4(30) , CK2(30) , CK2(30) , CK52(30) , GK52(30) , GK52(30) , GK52(30) , GK51(30) , GK51(30) , GK52(30) , GK		2	FCP	. ISPAN	•	IF INR	. ICRUDR	•	COMF IX 6
4 IBUMP IVISC ITWIST IFOILT  COMMON / PARM / A1 A2 A2 A3 A4  1 A5 GAWMA WACHNO COF  2 CC EWEXP(2) CK1(30) CK2(30)  4 GK52(30.90) CK4(30) CK2(30)  5 BLN. WCOE ATER YTER YTIP		m	EXTMSH	. REMESH	•	IMAPP	. YAW	•	COMP IX 7
5 IBCDIN AXISYM AREA IBLOUT COMMON / PARM / A1			IRUMP	. IVISC	•	ITWIST	. IFOILT	•	COMP TX R
COMMON / PARM / A1 , A2 , A3 , A4 , 1		'n	IRCDIN	. AXISYM	•	AREA	. IBLOUT		COMP IX 9
1 A5 , GAWWA , WACHNO , COE . CZ EMEXP(2) , CK1(30) , CK2(30) , CK2X(30) ,	ISN 0011	COMMON / PARM /	A.1	. A2	•	A.3	. A4	•	PAPM 2
2 C2 . EMEXP(2) . CK1(30) . CK2(30) . 3 CK3(30) . CK4(30) . CK51(30) . 4 CK52(30.90) . CK1X(30) . CK2X(30) . 5 BLU		•	AS	. GAMMA	•	MACHNO	· COE	•	PARM 3
3 CK3(30) , CK4(30) , CK51(30) , CK2X(30) , CK2X(30) , CK2X(30) , CK2X(30) , S BLDL , WCDE REAL MACHNO COMMON / WING / YROOT , XLER , XTER , YTIP ,		2	25	. EMEXP(2)	•	CK1(30)	. CK2(30)		PARM 4
4 CK52(30,90) . CK1X(30) . CK2X(30) . 5 5 BLDL		n	CK3(30)	. CK4(30)	•	CK51(30)			COMP IX10
S BLDY. , WCOE  REAL MACHNO COMMON / WING / YROOT , XLER , XTER , YTIP ,		•	CK52(30.90		•	CK1X(30)	. CK2X(30		COMF TX11
REAL MACHNO TO XLER , XTER , YTIP ,			BL.N.	. WCOE					COMF 1X12
COMMON / WING / PRODT , XLER , XTER , YTEP ,	ISN 0012	REAL	MACHNO						COMF 1X13
	0013	COMMON / WING /	YPOUT	04 5		2177	4.4.		The state of

LEVEL 2.2		(SEPT 76)	WINGCD	092/30	SEO FORTRAN H		EXTENDED		DATE	17.295/15.23.29	.23.29
			<b>N</b>	N.E.I	. MEI(10)		XLE1(10) ,	STRUE	•	INPTX 8	
		.,		NTEI	. YTE1(10)		XTEI(10) .	SYPOS	•	INPTX 9	
				CROOT	. SSPAN	•	THICK(11)	ZWNGWL	•	INPTX 10	
			•	NPAN	. YP(11)		THE TP(11)	NTWST	•		
				VINCTUIL	TMERCETT		TNIXITI	XF(180-11)	111	ATREMES	
				756180-111			XMUM.	X F(30)		TAPTA	
				XI EVERO			CODOMCADI	COBOTNETT	-	MING PO	
				VIE 1301	DEACT		CHEAN	VTEN 30			
				XIELSO!			THE AM	AIE # 130		II SHIM	
				NSO	100		KX0(12)	KX1(12)	•	AIRFOILS	
		~		NX0(12)			vx0(12.10)	WI(12.10)	101	AIRFUILS	
		•		XX0(12.10)			DXR0 (12)	DXR1(12)	•	AIRFOITO	
		•	•	DXTO(12)	. DXT1(12)		ALPHAW .	MIPLE	•	ATRF0111	
		•	lu	NTIPXI	. XLEWX(30)		XTEWX(30)	CORDX	•	CHOPD 1	
				CAV	• xox		XLEWP(30)	, XTEWP (30)		VSCFX3 1	
				KSWICH						VSCFX3 2	
ISN	ISN 0014		COMMON / WINGBC /	ZLML	. ZRWU		TWIST(30) .			COMF IXA?	
				WBCL (30,90)						COMF 1X43	
ISN	15N 00 15		COMMON / XYCOE /	(06.0E)X	. XIY(30.90)		X1X(30)			COMP IX18	
	Ser. Per			X17.1(30.90)			XX (30)	THE RESERVE THE PERSON NAMED IN		COME 1X10	
				X17K (30.90)						COMF 1X20	
TAN	A100 NS1		COMMON / BE! AXP	MAXIT	MAXITN	•	MAXTTY	PACE		PFI A NO 2	
•	-		-	INCEX	PTEST		DIESTY	PSUR	•	DEL AND 3	
				30130	000000000000000000000000000000000000000		VICT.	2000	•	2000	
			N I	Yanex	. MESIUDISU).		EPS	E SEX	•	HELA W 4	
					× 1 ×	•	JRD	KRD	•	RELAXO 5	
				L&S	. BIGRL	•		KE	•	PELA XD 6	
			9	LE	. ERROR		KOUNT	NSUP .	•	REMESH 3	
			•	IPASS						REMESH 4	
ISN	15N 0017		COMMON / NSBL /	XDUTA( 30 .90 )	100		ZOCU (30,90)		•	COMF IX65	
				ZOG (30.90)	•		CPU( 30.90).	CPL(30,901.	.106	COMF 1X66	
			2	ZLE(30)						COMF 1X67	
ISN	9100		DIMENSION	ETAKD (30)	ETAKD(30) . TWISTX(30)	•				18M 22	
ISN	00 19		EQUIVALENCE	(DZ(1),DXU(1))	((1))	•	(DZV(1), DXL(1))	(11)	•	TBM 23	
				(C) - XDUM( 1)	M(1))		COLLECTION X PRIM 2 (11)	15(1)1	•		
^				((1) EMINOX (1) TIMOX)	COLUMNIC		CONTINUE TO STATE OF THE STATE	I IMA C 1 1 1	• •	78W 28	
			. •	CONTRACTOR OF THE CASE	D. L. C.		100000000000000000000000000000000000000	***************************************	•	10 MOI	
70.	0000		DIMENSION DAY CLEAN DOZIN (CO)	002:4						5	
Non	200	•	DIMENSION OVER 130	100000000000000000000000000000000000000						TANCE AND THE	
		3		1000		1			1	A INCOME	
			THE THEFT THEFT	101 101 101	-					THE COLUMN	
TAN	15M 0021	,	61 1N 18. T. FTA. VP. VT )= (FTA-VB) / (VT-VB) # (T-0) +0	TIETTA-VOI	TINE TABLET	9	9			OLO SALA	
	-	u								WING CO.	
ISN	0022	,	AOF A = .017453293#AL PHAN	PAL PHAW			•			MINGO	
ISN	0023		-	EXP (2)			-			WINGODES	
		U								WING CO23	
		Ceeses	*** COMPUTE DIMENSIONAL	TONAL DATA	*************************	***	**********	********	***	WING CD24	
		U								WINGOLS	
ISN	ISN 0024		PAD=57.2957795130823	323						WING COZE	
		v								AIPFOITO	
		3	Messe OVERRIDE WING TWIST statestestatestatestatestates	LWIST ****	**********	*	*********	********	*	ATREDITI	
		U								AIRFOITZ	
ISN	0025		(NTWST.LE.O)	GO TO 5						AIRF0113	
ISN	0027									AIRF0114	
ISN	9200	150	ETAKD(I)=ETA(I)/SSPAN	SPAN						AIRFOITS	

LEVEL	1. 2.2	(SEPT 7	20	WINGCO OS/360 FORTRAN H EXTENDED	DATE 77-205/15-23-29
2				CALL SLOPY( YTWST, THE TP .NTWST, E TAKD, KTM1, TWISTX, DZU)	AIRFOITS
12	1SN 0030			NO 160 1=1=KTM1	AIRFOITZ
1			160 1	TWIST(I)=TWISTX(I)/RAD	ATRF0118
		U			AIRFOILS
-	ISN 0032	•	0	INMI = NPAN-I	AIRFOIZO
2 :	15N 0033			IF (WBCDRT) WRITE (6.45))	WING COZE
1					ATDEDISS
	SE ON NE				WINGOOD
1				KSW10H=0	VSCFX312
==				DO 50 N=1 .NPANM1	WINGCOSS
1					W TNG CO36
==	ISN 0042			CR = CORDIN(N)	WINGCOST
-	ISN 0043			CT = CORDIN(NP1)	WING CO38
12	ISN 0044			IF (IPASS oGT. 1) GO TO 7	REMESH58
1	ISN 0046	•	•	CALL SCALEINP1)	AIRF 0122
1			1	CONT TIME	WINGCOAS
1	ISN 0048	•		TWSTR=THETP (N)/RAD	WING COA4
1	ISN 0049	•			WING COAS
=	_	•			WING CD46
1	ISN 0051			ZLET = CT*SIN(TWSTT)	WING CD & 7
		•	***	****** COMPUTE SLOPES AT SPAN STATIONS *******************	
					WING COSO
2		۸:	-		WING COST
1				IF (N.GT.1) L=LS	WING COS
-	ISN 0055	•			WINGOOSS
-		•			WING COST
24	1SN 0057				WINGOOS
=		•		11	WING COSE
=		•			WING COST
		•		NX = J2-J1+1	WINGOSE
7			_	8	W1NGC059
1				Ŧ	WING COO
-			60	xout(J3) = (x(K,J) - xEW(K))/C	WING COOL
1					WING CO 62
1		•			WINGCO63
1				IF (Y.GT.YP(NP1)) GO TO 50	WINGCO64
*			21	CONT TNUE	WING COS
=	1237	•		WR=rP(N)	W TNG CO66
-				YT=YP(NP1)	WING COB 1
-		N		C	BLOU TUP3
=				ST = -ASIN(ABS(ZLE(K))	BLOUTUP4
1				JF (ZLE(K).6T.0.0) TWST = -TWST	BLOUTUPS
1		•		IF (NTWST.LE.O) TWIST(K)=TWST	A I PF 0123
2	15N 0078			THETA=TWIST(K)#RAD	WINGCOTZ
		U			
			***	***** COMPUTE AIRFOIL SLOPES *********************	
					WING CORS
-		•			AIRFOIZA
= :	15N 0080			INT = IMUX(N)+IML-1	ATREOTES
-	18N 0081			CALL SLOPYZ (XF(1.0N).ZF(1.0N).INL.INT.XOUT.NX.OR.DZR)	AIRFOZE
		u			AIRFOIZT

LEVEL	2.2	(SEPT 76)	767	WINGC.) DS/360 FORTRAN H EXTENDED	DATE 77.295/15.23.29 PA
ISN	47.10		•	20C1 (K.1) = 01 (1)	1000
791			!	2 02	STRUC .1
25.0					
100				2000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 0 4400
NO.					CO CANIC
NCI.					
NC!			-		STRVS
NCI.			30	5	STRVS B6
ISN				SUM=0.	VSCF X322
ISN		2		KM=(KTX+K8X)/2	VSCF X323
ISN	1 0143	3		JF (K.o.E.KM) GD TD 1001	VSCF X324
ISN	0145			00 1900 J=1.JI	VSCF X325
ISN	1 0146	9		DOZUL(J)=(DDZU(J)+DOZL(J))/2.	VSCF X326
ISN	1 0147	1	1000		VSCF X327
ISN	1 0148			DOZBAR=SUM/J1	VSCF X328
ISN	1 0149	6		IF(ABS(DDZUL(JI)-DDZBAR).GT.5.)KSWICH=1	VSCFX329
ISN				WRITE(6,2000)KSWICH	VSCF X330
ISN	0152	2	2000	FORMAT(//8H KSWICH=,13)	VSCFX331
ISN	0153	9	1001	1001 CONTINUE	VSCF X332
		U			WINGCIPO
		0	C******	*** OUTPUT THE SLOPES *********************	## WINGCIZI
		U			w Ing C122
ISN		4		JF ( .NOT. WBCPRT) GO TO 20	wingc123
ISN		9		WRITE(6,454) K,ETA(K),Y,C,THETA	INPTX357
ISN	1 0157	1		WRITE (6.452)	WINGCIPS
ISN	0158			WRITE(6.453)(M.XOUT(M).QU(M).QL(M).DZU(M).DZL(M).DDZU(M).DDZL(M).	
				14=1.41)	
ISN	1 0159	6	20	20 CONTINUE	WINGCIET
ISN	0910	0	20	50 CONTINUE	WINGCIZE
8		U			WINGC129
5		U	C******	### #################################	
		U			WINGCIST
ISN	1 0161	-	451	451 FORMAT (1H1,16X,21HWING SURFACE GEOWETRY)	WINGCIBS
ISN	ISN 0162	2	452	452 FORMAT (11X+1HM-6X+3HX/C+6X+4HZU/C+6X+4HZL/C+4X+6HDZU/DX+4X+	STRVS R9
				16HDZLZbx.6x.4HDDZU.6x.4HDDZL/)	STPVS 90
ISN	0163	9	453	453 FORMAT ( 2x,110,5F10,6,2F10,5)	STRVS 91
ISN	0164	4	454	14	INPTX358
				1 F9.4.6X.13HTWIST ANGLE = .F8.4 /)	INPTX350
ISN	1SN 0165	9		RETURN	WINGCI38
ISN	1SN 0166	9		END	WINGC139
*0PT10	2	N EFFEC	T *NA	*OPTIONS IN EFFECT*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)	
#DPT10	y	POURCE TO SEE CLASSING	TASO	IDGE FREDIC NOTICE AND FELT MOUND MORROWAT COCTUT AND FELT MOUND FELT	
,					
*STATISTICS*	STIC	* \$	SOUR	SOURCE STATEMENTS = 165, PROGRAM SIZE = 6964, SUBPROGRAM NAME	IE =WINGCO
*STATISTICS*	STIC		DIA	NO DIAGNOSTICS GENERATED	
	END	***** END OF COMPILATION	PILA		124K BYTES OF COPE NOT USED

RECKESTED OPTIONS OPTERS , NOMAP

LEWEL 2.2 (SEPT 76)

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	FLAG(1)
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ONE)	NOXREF
TOP BL(N	GOS TMT
NAME(MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE(MAX) AUTOBBL(NONE)	EBEDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(I) DUMP
S) SIZE	NOMAP
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AIN) OP	EBCOIC
NAMECH	SOMRCE
TIONS IN EFFECT	
OPTIONS !	

COMMINA   MNEX / JANAX   LANAX   LANAX
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PAGE
DATE 77.295/15.23.46
FORTRAN H EXTENDED
08/360
709800
(SEPT 76)
EVEL 2.2
W

JMBC = J + 1 - J1 RBCU(K,J) = WBCU(K,JWBC) 2 CONTINUE RETURN END ISN 0014 ISN 0015 ISN 0016 ISN 0016

TOPB CD 17 TOPB CD 18 TOPB CD 19 TOPB CD 20

40PTIONS IN EFFECT SOURCE EBCDIC NOLIST NOBECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP 17. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

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2

\*STATISTICS\*

446. SUBPROGRAM NAME = TOPBOD

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

160K BYTES OF CORE NOT USEN

## REGIESTED OPTIONS OPT(2) , NOMAP

OPTIONS

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	SURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMI NOXREF ALC NOANSF TERM FLAG(!) DUMP
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8	210
Z	EBG
N Z	SCE
NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE	Sou
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EF	
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	U	SLOPY
	Cassess SETUP TO COMPUTE WING SURFACE SLOPES ####################################	SLOPY
	v	SLOPY
6000	COMMON /LEVIX/ DXU(90) . DXL(90) . XDUM(90) . XDUM(90)	LEVIX
	1 XDUM3(90) • XDUM4(90) • XDUM5(90) •	LEVIX
	2 XDUM6(2000)	LEV1X
*0	DIMENSION XX(1), YY(1), XOUT(1), Z(1), DZ(1), X(150), Y(150)	STRVS 93
90	DFUBB(F1,F2,F3,D1,U) = (F3 - F1 -U+U+(F2 - F1)) ( U+D1+(1-U))	SLOPY
90	N=N	STRVS 95
10	NX=NXX	STRVS 96
80	DO 10 J=1.N	STRVS 97
601	X(7)=XX(7)	STRVS 98
10	10 Y(J)=YY(J)	STRVS 99
111	DX3=X(N-1)-X(N)	SLOPY
112	Dx4=x(N-2)-x(N-1)	SLOPY
113	Dx4 = 1. + Dx4/ Dx3	SLOPY 1
114	DY2=DFUBB(Y(N),Y(N-1),Y(N-2),DX3,DX4)	SLOPY 1
115	DX1=X(2)-X(1)	SLOPY !
910	DX2=X(3)-X(2)	SLOPY !
117	0x2 = 1. + 0x2/ 0x1	SLOPY 1
81 00	DY1=DFURE(Y(1),Y(2),Y(3),DX1,DX2)	SLOPY !
910	CALL SPLN1 (X,Y,N,DV1,DV2,1,1,XP,VP,DVP,DDD)	SLOPY 16
050	00 50 1=1 0NX	SLOPY 1
121	XP=XUUT(1)	SLOPY !
122	CALL SPLNIX (X*Y*N*DY1,0Y2*11-1,XP,YP*DYP*DDD)	SLOPY 19
123	GY= (1)2	SLOPY 20
124	DZ(1)=0vP	SLOPY 21
125	50 CDNT INGE	SLOPY 22
920	RETURN	SLOPY 2
127		7 7 7 7 7 1

MOPTIONS IN EFFECT \*NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

MOPTIONS IN EFFECT#SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

1984. SUBPROGRAM NAME = SLOPY

STATISTICS\* SOURCE STATEMENTS = 26. PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

160K BYTES OF CORE NOT USED

GRUMMAN AEROSPACE CORP BETHPAGE N Y
AN AUTOMATED PROCEDURE FOR COMPUTING THE THREE-DIMENSIONAL TRAN--ETC(U)
FEB 78 W H MASON, D MACKENZIE, M STERN F33615-75-C-3073 AD-A055 109 UNCLASSIFIED AFFDL-TR-77-122 NL 2 OF 9 AD A055 109 £ - veligible

DATE 77.295/15.23.51

## REQUESTED OPTIONS OPT(2) . NOMAP

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NAME (MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE (MAX) AUTODBL(NONE)	E EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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Ž O	ONS IN EFFECT	NAME (MAIN) OPTIMIZE(Z) LINECOINT(55) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF	NANSF	ALC NOANSF TERM FLAG(1)	2
	2000	11 (X.V.N.DY1.DY2.K1.K2.XP.YP.DYP.DYPP)	SPLNI	~	
SN	6000	. DXL(90)	LEV1 X	~	
		1 XDUM3(90) • XDUM4(90) • XDUMS(90) •	LEV1 X	m	
		2 xpuwe ( 2000)	LEVIX	•	
SN	*000	DIMENSION A(300).B(300).X(1).Y(1)	VSCF X4	13	
			SPLNI	•	
		*** CONTINUOUS DERIVATIVE INTERPOLATION SUBROUT	SPLNI	ıc.	
		**	SPLNI	ç	
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		*	SPLNI		
		*	SPLNI	•	
		11 2 ***	SPLNI	10	
		### DY1 = 15T OR	SPLNI	11	
		*** DYZ = 1ST OR 2ND DERIVATIVE AT UPPE	SPLNI	12	
		KI = 1DYI = IST DERIVATIVE (GIVEN)	SPLNI	13	
		THE RIE 2 STORY I SOUND DERIVATIVE COLVENY	SPLNI		
		Cumpages X = 1	SPLNI	15	
		THE ME - E COCCOUNT - END WENT VALIDE TOTAL	SPEN I		
2	2000		SPLEN!		
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2 2	2000	1 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SPENI	02	
2 2	6000	13/113/11/20/37-11/3/2	SPLAI	33	
2 2			COLNI	23	
Z	0012		SPINA	200	
N	0013	A(1) = 0x1/2	SPLNI	25	
Z	00 14		SPLNI	92	
SN	00 15	3F(N-E0-2)G0 T0 42	SPLNI	22	
SN	0017		SPLNI	28	
SN	8100	THE THE PARTY OF T	SPLNI	50	
SN	61 00	C1=X(1+1)-X(1)	SPLN1	30	
SN	0050	C2=X(1+2)-X(1+1)	SPLNI	31	
SN	0021	C3=V(1+1)-V(1)	SPLNI	32	
SZ	00 22	C4=Y(1+2)-Y(1+1)	SPLNI	33	
S	0023	CS=C3/C1-C4/C2	SPLNI	34	
25	0024	CO=C1 VC2	SPLNI	35	
20	62.00		SPLNI	98	
2 3	9000	100000000000000000000000000000000000000	SPLNI		
20	0027	AC) = (C) (C) - (C) + (C)   (C	SPLNI	98	
2 2	9700	D. T. C.	SPENI	66	
2 2	6700		SPLNI		
20	200	CONTRACTOR OF THE PROPERTY OF	SPLNI		
Z	0032		Spini		
S	0034	20 A(J+1)=(DY2-C2+C2+A(J))/(C2+(B(J)-C2))	SPLNI		
S	0035	1	SPLNI	2	
SN	96 00	30 A(J+1)=(DY2/2.+A(J))/(-2.*C2+B(J))	SPLNI	9.0	

NOPTIONS IN EFFECT MANE (MAIN) OPTINIZE(2) LINECOUNT (56) SIZE (MAX) AUTODBL(NONE)

DIP=SLOPE+A(K)+(D-C)+A(K+1)+(2.+D-C)+C PP=7 (1-1)+(SLOPE+(A(K)+A(K+1)\*C)\*D)\*C DYPP = -2.4(A(K)+A(K+1)+(2.4(C-0)))

8073

ISN NSI

92 00

ISN

SLOPE=(Y(1)-Y(1-1))/(X(1)-X(1-1))

C=XP-X(1-1)

D=X(1)+0

6900 0200 1100 9072 92.00 87.00

ISH ISN ISK

K=2+1-3

SPLNI

SPLNI

SPLNI SPLNI SPLNI

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Cessesse MOW XP HAS BEEN BRACKETED SO THAT X(1-1).LT.XP.LE.X(1) essesse

F(X(1).LT.XP) GO TO 14

SPLNI SPLNI SPLNI 4324, SURPROGRAM NAME = SPLM

152Y BYTES OF COPE NOT USED

LEWEL 2.2 (SEPT 76)

SQURCE STATEMENTS =

STATISTICS.

75. PROGRAM SIZE =

SPLNI

DIAGNOSTICS GENERATED . STATISTICS.

\*\* \*\*\* END OF COMPILATION \*\*\*\*\*

91

DATE 77.295/15.23.58

REGLESTED OPTIONS OPT(2) NONAP

NAME(NAIN) OPTIMIZE(2) LINECOLNT(55) SIZE(MAX) AUTOBBL(MONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTNT NOXREF ALC NOANSF TERM FLAG(1) DUMP OPTIONS IN EFFECT

•	LEVIX	FIXUP 3	SMOOT 1	SMTH 4	SWTH 5	SMTH 6	SMTH 7	SMTH 8	SMTH 9	SMTH 10	SMTH 11	SMTH 12	SMTH 13	SMTH 14	SMTH 15	SMTH 16	SMTH 17	SHTH 18	SMTH 19	SMTH 20		SMTH 22	SMTH 23	SWTH 24	SMTH 25	SMTH 26	SMTH 27		SMTH 29	SMTH 30
• XDUM(90) • XDUM2(90) • XDUM5(90) •																														
N-K.X) DXU(90) . DXL(90) XD(M3(90) . XDUM4(90)	XDUME ( 2000)		2(200)							V(1)+0+V(1-1)) A				82					(3)) 10+1(1))					-V(N-2) 1/04V(N) 1						
SUBROUTINE SHTH(Y,N,K,X) COMPON ALEVIX/ DXU(90	~	DIMENSION X(1),Y(1)	DIMENSION	NI=N-I	DO 10 1≈2 .N1	DUB1=X(1)-X(1-1)	DUB2=X(1+1)-X(1)	O=DUB2/DUB1	U=1.+0	Z(1)=.54(Y(1+1)+4pY(1)+04Y(1-1))A	10 CONTINUE	Z(1)=Y(1)	Z(N)=V(N)	IF (K.NE.1) GO TO 20	DUB1=X(2)-X(1)	DUB2=X(3)-X(2)	Q=DUB2/DUB1	U=1.40	Z(1)==5*((U*Y(2)-Y(3)) /0+Y(1))	DUB1=X(N1)-X(N)	MB2=X(N-2)-X(N1)	0=DUB2/DUB1	U=1.40	Z(N)=.54((U*Y(N1)-Y(M-2))/Q+Y(N))	20 CONTINUE	DO 30 I=1 N	Y(1)=Z(1)	30 CONT INJE	RETURN	96
0002		100	500	900	100	900	6000	010	1100	0012	0013	100	00 15	91 00	90 18	90 19	9020	9021	0022	9023	9024	9025	90 26	7200	302e	9029	9030	0031	9032	22.00

ADPTIONS IN EFFECT MANE (MATN) OPTIMIZE(2) LINECOUNT (55) SIZE (MAX) AUTODOLINONE)

40PTIONS IN EFFECT+SOURCE EBGDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP

1406. SUBPROGRAM NAME = 32. PROGRAM SIZE = SOURCE STATEMENTS = STATISTICS.

\*STATISTICS\* NO DIAGNOSTICS GENERATED

SESSES END OF COMPILATION SESSES

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DATE 77.295/15.24.01

REQUESTED OPTIONS OPT(2) . NUMAP

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ETAR(30)   COEU   COEL     ZUVL   ZPAVL   ZVVL     EDUM(30)   XMIN   XMIN   XMAX     ZMAX   XMIN   XMIN   XMIN     XICX(20)   XITX(20)   XITX(30)     XICX(30)   XITX(20)   XITX(30)     XICX(30)   XITX(30)   ETALX(30)     XICX(30)   XITX(30)   ETALX(30)     XICX(30)   XITX(30)   ETALX(30)     XMAXX   XVMIN   XMAXX     XMAXX   XMIN   XMAXX   XMAXX     XMAXX   LMAX   XMIN   XMIN     XMIN   XMIN   XMIN   XMIN   XMIN		•			X11 (90)	•	XIC(90)		106301X		ETAL (30)	•	INTER		
COMMON   ENTRY   MAX   MAX   MAX   MAX					1021301		ETABLED		OFIL		COE	•	THIER	•	
COMMON   FUNCE   TEXTS   TEXTS   TEXTS		N			E . M. 1301	•	1001		200		חבר	•	111111111111111111111111111111111111111		
COMMON   EXTER   XILX(30)   EDWIN(30)   XNIN   YNIN   YNIN		n			ZCW	•	שאר		AVL		ZC NL	•	INTER	0	
COMMON   EXTER   XIEX(30)   ETAX(20)   XINX(30)   XINX(30)					POMM(30)		EDUM(30)		MIN		MAX	•	INTER	•	
COMMON FETTER / XIEX(20)   TTX(20)   XINX(30)    2		*			WAX	•	ZWAX		MIN		NIMZ	•	INTER	1	
COMMON   EXTER   XIEX(30)   ETAX(20)   TAX(20)   TAX(30)		•			3 6		John S						INTER	•	
COMMON   MOEX   MAXX		,	-		-				*****				0 34.3		
THE CONTROL   THE CONTROL   THE CONTROL	SN 0013	•	CHARLES		AIEAISO	•	10214412		10214		100 JAN 17	•		•	
2 YWAX 2 ZHAX 2 COLL 2  2 JALL X 2 ZHAX 2 COLL X 2 LANX 4  2 ZHAX 2 ZHAX 3 COLL X 2 LANX 4  1 JALL JALL 3 LANX 4 KINAX 1 LANX 4 KINA 1  2 JALL JALL 3 LANX 4 KINAX 1 LANX 4 KINAX 4  2 JALL JALL 3 LANX 4 KINAX 4 LANX 5 LANX 5 LANX 5 LANX 5 LANX 6 LA		- 1			ALEALSO	•	AICALSON		1001741		TOC INC.	•			
The control of the		8			ETACX (20		ETAKX (20)		XNIE		XMAXX	•	EXIEN	•	
COMMON   INDEX   JAWX   SPAUX   TOWN   TOWN		2			WAXX	•	ZHAXX		MINX		XNIA	•	EXTER	K:	
COMMON   INDEX   MAK   KTR1   MAK   KTR1   MAK   KTR1   MAK   KTR1   MAK   KTR1   MAK   KTR1   MAK   LAK130   MAK   LAK130   LAK1140   LAK130   LAK140   LAK130   LAK140   LAK130   LAK140   LAK140   LAK140   LAK140   LAK140   LAK140   MAK					ZWX	•	ZRVLX		CMX		ZEVUX	•	EXTER	c	
COMMON INDEX / JAKE		•			ZRWUX		ZCWUX						EXTER	1	
1	SN 0014		NOMMU	INDEX	JHAX		KMAX		MAX		KTM1	•	THEEX	•	
MAKE   JTE(30)   LWINGL   LWINGL		•			KTIP		KTIPI		MIE		A.E(30)		INDEX		
The component of the					MT		JTF (30)	-	ENLA		FINGU		INDE X	•	
### COMMON / INDEXX / JMAXX					JMAX 1		KMAXI		MAXI		KROOT	•	COMP	- ×	
COMMON / INDEXX / JMAXX , KMAXX , LAAXX , KTHIX , KTTIX , KTTIDIX , LTTIDIX , LTTIDIX , LTTICO , JTEX(20) , JTEX(20) , JTEX(20) , JMAXXI , KROOTX , LACONY , KROOTX , MAXIX , JMAXXI , KROOTX , JMAXXI , JMAXXI , KROOTX , JMAXXI , JMAXXI , JMAXXI , KROOTX , JMAXXI ,		•											PANEX	*	
LINNGLY   LUNGLY	2000		-		******		******		****		*****			,	
LINGAXI	CION NO	•	-		-							•	-		
COMMON   FLAGS   LUMAN   LUM		- (			X III	•	XI ALL		LEX (20)		SIEKICO	•	I TOPE X		
COMMON   FLAGS   LUMAXI   STANE   ST		N			LEMBOX	•	Langer		TAXAL		TYVU	•	I MUE A		
COMMON FLAGS   1019K   15PAN   19PLOT   10PLOT		9				•	KROOTX		XId				IMDE X	0	
SOLV	SN 0016	•	NOMMON			•	ISAVE		PLOT		MSHINT	•	FLAGS	2	
2 FCR 15PAN 1FINR 1FORDR 15PAN 1FINR 1FORDR 14 1 10017 11015K 1185F 1140F 17415C 17415T 1FOILT 15PAN 17415C 17415T 1FOILT 17415C		•			SOLV	•	WBCPR7		BCPRT		RODY	•	FLAGS	3	
### BODIN AXISWA AREA IBLOTT HOLDT    BODIN AXISWA AREA IBLOTT		2			804	•	ISPAN		FINE		1CRUDR	•	TNPTX	-	
HUMP   1VISC   1TWIST   1FOILT		M			EXTWSH	•	REMESH		MAPP		YAW	•	INPTX	2	
BODIN   AXISYM   ARFA   IBLOUT		•			IBUMP	•	IVISC		TRIST		IFOILT	•	INPTX	3	
LDGICAL IDJSK : ISAVE : IPLOT : WSHINT : SOLV : WBCPRT : BBCPRT : BDDV   ISAN : ISAN : ITAN : WANT : BDDV   ISAN : ITAN : WANT :		0			IBODIN	•	AXISYM		IRFA		IRLOUT		INPTX	•	
SOLV	SN 0017	-	DGICAL		IDISK	•	ISAVE		TOTAL		MSHINT	•	COMF	* ×	
SECRETARY   SECR		-			SOLV	•	WRCPRT		BCPRT		BODY	•	COMF 1	×	
3 EXTMSH REMESH IMAPR VAN  4 IBUMP IVISC ITMIST IFOILT  5 IBODIN AXISYM AREA IBLOUT  COMMON / RELAXP / MAXIT MAXITY MAXITY  1 RSUBX RESID J(30), EPS REDEX  3 WI NIX BESTD J(30), EPS REPEX  4 LRD RESID J(30), EPS REPEX  5 LE EPROR ROUNT REDEX  6 IDASS  COMMON / JUMP / AZU A7L COFF  1 PAUMP (30,90)  COMMON / BODVI / XVIDSE ATAIL MBIN(2) ABIN(2,35)  1 DAIL ALPHAR NEDTS(0)) REPOX AFL(15)  5 BEK(15) CFK(15) ABL(15) GBL(15)  6 ACL(2) RELLS  7 XORU(90) ARRIL(90) DERBU(90) DERBL(90)  7 XORU(90) ARRIL(90) DERBU(90)  8 ARRIL(90) ARRIL(90)  8 ARRIL(90) DERBU(90)  9 XORU(90) ARRIL(90)  9 XORU(90) DERBU(90)		N			FCR	•	ISPAN		FINE		ICRUDA	•	COMF	9 ×	
## 18UMP   1VISC   1TWIST   1FOILT    COMMON   RELAXP   MAXIT   MAXITN   MAXITX   MA		m			EXTMSH	•	REMESH		MAPR		YAN	•	COMF	1 ×	
5 180DIN . AXISYM . ARFA . IBLOUT COMMON / RELAXP / MAXIT . MAXITN . MAXITX . INCR 1					IBUMP		IVISC		TRIST		FOILT	•	COMF 1	& ×	
COMMON   RELAXP   MAXITY   MAXITY   MAXITX   MCR					1800 IN	•	AX 15YM		IRFA		IBLOUT		COMP	0 ×	
1 INGPX REST RESTX RESTX RESUB  2 RSUEX RESTDJ(30), EPS EPSEX  4 LRD RIGRL RE  5 LLE RROPE ROUNT RE  6 LLE RROPE ROUNT RE  1 LASS ATL COFF  2 COMMON LAWP (30,90) PJUMPX(20,30)  COMMON ROOVI NOTSE RTAIL NBIN(2) ROUSE  1 ACH(15) CFK(15) AFL(15) GFL(15)  5 CFL(15) AGL(2) CCL(2) BTVE  6 ACL(2) ROUNT ROUSE RIVER  7 XORU(90) XORL(90) DZRBU(90) DZRBL(90)	SN 0018	U	DHIMON	/ RELAXP	/ MAXIT	•	MAXITN		AXITX		INCR	•	PELAX	2 4	
2 RSUEX RESTDJ(30), EPS , EPSEX		-			INCRX	•	RTEST		MESTX		RSUB	•	PELAN		
3		8			RSUBX	•	RES103(30)		Sd		EPSEX	•	PELAX	4 4	
LE EPROR GOUNT KE  5 LE EPROR COUNT KE  6 COMMON / JUMP / AZU CZL COFF  2 COMMON / BODVI / XVIDSE CZL COFF  1 COMMON / BODVI / XVIDSE CXTAIL NBIN(2) COFF  2 JTAIL ALPHAR NBIN(2) NINSE  2 JTAIL ALPHAR NBIN(2) RIOO)  3 KENX(50) CFK(15) REL(15) GBL(15)  6 ACL(2) SBL(15) CCL(2) STYPE  7 XXFRL(90) XRFL(90) DZRBU(90) DZRBL(90)		3			5	•	WIX		no.		KRD	•	RELAX	5 0	
S					LRD	•	BIGRL		IE		KE	•	PELAX		
6 COMMON / JUMP / AZU		0			3		EPROR		TNUO		NSUP	•	PEWES	H	
COMMON / JUMP / AZU , A7L , BZU , BZL , COF , CTU , CTV , CTL , COFF , COMMON / BODY / XWIDSE , XTAIL , MBIN(2) , XBIN(2,35), 1 , MBODS , JRUP(2) , JBDN(2) , JBDN(2) , JBDN(2) , MCSE , CFK(15) , CCL(2) , CCL(15) , CFK(15) , CCL(2) , CCL(15) , CFK(15) , CCL(2) , CCL(15) , CCL(15		9			IPASS								PENES	•	
1 CZV . CZL . CDFF 2 PJUMP(30,90) . PCDEF(30,90) 3 KPINDX(30,90) . PJUMPX(20,30) 1 MBQDS . XTAIL . MBIN(2) . XBIN(2,35). 2 JTAIL . MBPYS(90) . MNOSE . JAPAR . MBPYS(90) . R(90) . MR(15) . GFK(15)	SN 0019	•	NOWHOL	JUND	NZN	•	A7L		nzı		BZL 128	•	SUMP	2	
2 PAUMP(30,90) PCOEF(30,90) 3 KPINDX(30,90) PCOEF(30,90) COMMON FRODVI ANDSE XTAIL NBIN(2) XBIN(2,35) 1 MBODS JRUP(2) MBON(2) MOSE 2 JAIL METS(90) MOSE 3 KRK(15) CFK(15) REL(15) GFL(15) 5 ACL(2) BCL(2) GRL(15) GFL(15) 7 XORU(90) XRR(190) DZRBU(90) DZRBL(90)		-			25	•	כער		OFF			•	COMF D	*IX	
3 KPINDX(30,90) , PJUMPX(20,30) COMMON / BODVI / XVISE , XTAIL , NBIN(2) , XBIN(2,35), 1 JAIL , ALPHAR , NBPTS(90) , R(90) 3 KRMX(90) , LMN , LMX , AFK(15) , BFK(15) , GFK(15) , BFL(15) , GFL(15) , GFL(15) , GRL(15)		2			PJUMP (30	8			COEF (30.	106		•	COMF	XIS	
COMMON / BODVI / XNISE , XTAIL , NBIN(2) , XBIN(2,35),  1 NBODS , JRUP(2) , JBDN(2) , JNDSE  2 JTAIL , ALPHAR , NBPTS(90) , R(90)  3 KBIX(190) , LM , LM , AFL(15) , R(15) , AFL(15) , AFRL(90) , DZRBL(90) , DZRBL(90) , DZRBL(90) , AFRL(90) ,		3			KP INDX (3)	06.0	•		JUMPX (20	.30	•		COMP !	X16	
1 NBODS . JRUP(2) . JRDM(2) . JNOSE . JRAIL . ALPHAR . NBPTS(90) . R(90) . LM . LM . LM . AFF (90) . R(90) . LM . LM . AFF (15) . LM . AFF (15) . AFF (15) . AFF (15) . GCL(15) . AFF (15) . AFF (15) . GCL(15) . BTVPE . AFF (160) . NZFBU(90) . NZFB	SN 0020	0	NOMMO				XTAIL		BINIED		XBIN(2,35	. 65	AGOS	~	
. ALPHAR . NBPTS(90) . R(90) . CFK(15) . AFK(15) . GFK(15) . AFL(15) . GFL(15) . GFREL(90) . DZFREL(90) . DZFREL(90) .					SODEN	•	JRUP(2)		MBDN(2)	•	JNOSE	•	800	3	
. LMN . LMX . AFK(15) . GEL(15) . AEL(15) . BEL(15) . GEL(15) . GEL(15) . GEL(15) . GEL(15) . SCL(2) . STYPE . XPRL(90) . DZPRL(90) . DZPRL(90) .		8			JTAIL	•	ALPHAR		8PTS(90)		R( 90 )	•	BODY	•	
GFK(15) . AFL(15) . GFL(15) . GFL(15) . ABL(15) . GBL(15) . GLL(15) . GLL(15		3			KBMX (90)	•	CAN		WX XW		AFK(15)	•	BODA		
• ABL(15) • BBL(15) • CBL(15) • BCL(2) • BCL(2) • BTYPE • CCL(2) • BTYPE • CRL(90) • DZRBL(90) • DZRBL(90) • CRRPE(90) • CRRPE		•			BFK(15)	•	CFK(15)		VEL (15)		B-L(15)	•	BODA	c	
. BCL(2) . CCL(2) . BTVPE .		2			CFL(15)	•	ABL(15)		38F(15)		CBL(15)	•	BODY	-	
. XPRL(90) . DZPBU(90) . DZPBL(90) .		9			ACL(2)	•	BCL(2)		CL(2)	•	BTYPE	•	BODA	•	
		-			XPHU(90)	•	XPHL (90)	•	128BUL 901	•	DZRBL(90)	•	CHEN 1	-	

			•	ZREE	KBMXX(30) .	MOSEX .	STAILX .	RODY 11	
			•	RB IN (2.35).		XTAILX .	YOB	FIXCH	
ISI	ISN 0021		COMMON / BODY2	/ FX(30.901 .	FY(30.90) .	FZ(30,90)		COMP TX23	
			· turbusha desagns in a	KBCD (30°00)	•	LBU(20.90).	LBD(20.90).		
			2	NRPTSX(30).	LB00 (30.90)	•		COMF 1X25	
		2.00	3 ( St. Links	LBUX (20,30)		LBDX (20 .30)		COMF 1X26	
				FYX(20,30).	CPS(20,90)			CUMP BX27	
ISI	ISN 0022		COMMON / BODY3	/ KBMAX .	KBMAXX .	LBL .	L.BU	BODY 1	
			The secondary of the	LLRLX .	LLRUX .	RRCU (30 , 90)		COMP 1X29	•
			2	KBS .	RBCL (30,90)			COMF 1X30	•
			3 Section 4 Land Commence	RBCUX(20,30)	Paster 12 month	RBCLX(20 +30)	•	COMF IX31	
			A SIGN CONSTRUCTOR SECURITY	DRRCU .	DRBCL .	DRBCUX .	DRBCLX .	COMF IX32	<b>A</b> :
				SALPH(90) .	SALPHX (30)			COMF 1X33	•
ISI	ISN 0023		COMMON / BODYBC	· IRUD .	IRLD .	18SIDE .	ETABUCIO) .	COMF IX34	
			■ 100 000 000 000 000 000 000 000 000 00	ETABL(10) .	ZHOD(20) .	NRBS .	XRBS(100)	COMP IXE	•
151	ISN 0024		COMMON / OLD /	* (06)UIX	ETAD(30) .	ZTO(20) .	PJUMPO(30)	. 010	•
			日本の日本の日本の日本の日本の日本の日本日本の日本	LBUD(20.90)	•	LBD0(20,90)		070	•
			2	PJUMPT (30).		. 046	KMO .	90.	
			A let the same and the	5	STATED .	NOSEO .	LWUO .	ישרם	•
			日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日	FINE				OF0	•
ISI	1 0025		LOGICAL	FIRE				COMF IXA	•
ISI	15N 0026		COMMON / PARM /	•		A3 .	•	. PAPM	Q.
			Theory of the same	. AS	GAMMA .	MACHND .	. age	PARM	
			2		EMEXP(2) .	OK1(30) .	CK2(30)	PARM .	
			n	CK3(30)	CK4(30) .	CK51 (30)		COMF IXE	
			◆ 新のおおはなのはない。	CK52 (30,90)	•	CK1X(30) .	CK2X(30)	COMF IX11	
				BLOL .	WCDE			COMF 1X12	<b>~</b>
ISA	15N 0027		REAL	MACHNO				COMP IXES	
		U							
151	15N 0028		DIMENSION	TITLE (20)					
		U							•
95		v							•
		v						10	
		C****	***** CALCULATES C	CALCULATES COEF FOR EXTRAPOLATION FORMULAS USED TO FIND	OLATION FORM	ULAS USED TO	FIND ****	2	
			sector Dans AT WIN	PLAMP AT WING TRAILING EDGE. STREETSTREETSTREETSTREETSTREETSTREETS	E . ****	*********	*********	۷:	
•	-		S ALL SHOW HAT A SHOWING HATE - SHOWEN		2 111 01				•
2 5	6200 NSI		27 - ((77410 - 77(0 WINGIAS)) + (77410 - 77(1 WINGIAS)))	- 77(0 WTMCH41)	TA (TTWING	- 77 IS WENGING	,,,,,		
2	3		SMINITED TO THE STATE OF	- ((Z+C)+(C+1)+(Z+	SWINGS	S-TTO WINGILE	2111		
		•							
ISP	ISN 0031	,	BZU = ((ZTVING	- ZT(LWINGU))*(ZTWING	12 - SNIME - 21	- ZT (LWINGU+2)))/			
				((ZT(LMINGU+1)-ZT(LWINGU))*(ZT(LWINGU+1)-ZT(LWINGU+2)))	)*(ZT(LWINGU	+1)-ZT(LWINGL	142111		•
		v							
ISI	ISN 0032		CZU = ((ZTWING	= ((ZIMING - ZI(EMINGU))*(ZIMING - ZI(EMINGU+1)))/	(ZTWING - ZT	(LWINGU+1))	Contract Contract		
		5		{{ZT{Lwingu+z}-zT{Lwingu}} *{{ZT{Lwingu+z}-zT{Lwingu+i}}}}	) * ( ZT ( LW I NGU	+2)-ZT(LMING	141111		•
ISI	ISN 0033		AZL = ((ZTVING	- ZT(LMINGL-1)) +(ZTWING - ZT(LWINGL-2)) 1/	- SNIMIZ)+(	ZTILLW INGL-Z7	~		
			1 ((ZTILNINGL	((Z1(LWINGL)-Z1(LWINGL-1))*(Z1(LWINGL)-Z1(LWINGL-2)))	)*(ZT(LWINGL	)-ZI(LWINGL-	2111		•
	S . 100 P	U							•
ISI	ISN 0034		-SKI = ((ZIAING-	(CTWING-ZT (LWINGL))*(ZTWING	TWING - ZTIL	ZTILWINGL-2111/			
		•	1 ((ZT(LVING	(Z1(LWINGL-1)-Z1(LWINGL))*(Z1(LWINGL-1)-Z1(LWINGL-2)))	))*(ZT(LWING	L-1)-TICLUING	31-2111		
	16 M 76	,	Serving.	- TILL WING MAN TO THE PARTY -	TT - SHIPT	- 77(1 - Dutw 1) 17 -		10	
i	-			((ZT(LWINGL-2)-ZT(LWINGL))*(ZT(LWINGL-2)-ZT(LWINGL-1)))	)*(ZT(LWINGL	-21-ZT(LWING	71111	200	
						-			

	•	10	24
ISN 0036	IF (IPASS.6T.1) GO TO 150	RMSF X161	191
	17ER = 0	10	•3
	80 3 J = 1-90	10	:
	DO 3 K = 1930	10	45
130	00 3 L = 1.20	10	9.
	-	10	11
	00 6. J = 1.30 Character and the state of th	10	+0
	80 6 K = 1,20	70	60
ISN 0045	00 6 L = 1-20	10	90
ISN 0046	6 PC(LaKaJ) = 0.0	10	51
	Company of the state of the sta	10	25
		-	53
	CHERROOF READ OLD SOLUTION CRESSECTIONSCREENSSECTIONS CONTRACTOR C		24
	C CONTROL OF THE PARTY OF THE P	2	32
		10	8
		21	57
ISN 2050	DO 2 K=1 JKMAX	10	8
	2 PJUMP(K,J)=0.0	10	29
ISN 0052	XZTCM	10	3
		2	19
	Consesses MEAD IC FROM OLD FINE INTERIOR MESH SOLUTION SESSESSESSESSESSESSESSESSESSESSESSESSES	21.	29
			3 3
15 M 155		: :	1 3
ISM ON SE	FALSE 6.00 1 11 F	SAVE	
	F 40 10 - 510 ) KWB TF	VSCF X330	
	1F (KWRITE-E0.0) GO TO 101	FAIL SAGO	9
	JF (MSHINT) GO TO 101	FAIL SAA!	
		FAIL SAA2	745
	C PROBLEM NO. 30	FATL SAA3	143
		FATL SA44	144
	wR1TE(6,969)	FAIL 3445	155
ISN 0062	MENINT = .TRUE.	FATL SA46	9
		FAIL SAA7	147
	101 READ(10-500) KTOLD-KOOLD	FATLSABB	2
	MEAD(10.500)(NXD(K).KEKTOLD.KBOLD)	VSCF X341	
	DO 300 K=K70LD K80LD	VSCF X342	245
	•	VSCF X343	343
	300 MEAD (10,501) (XOUTD(K 4.), J=1,NX)	VSCF X364	1
	READ(10,500) ITERO.JMO.KMO.LMJO.KTO	SAVE	22
	READ(10,501) (XID(J),-1-1,MO),(ETAD(K),K=1,KMO),(ZTD(L),L=1,LMO)	SAVE	23
	DO 235 K=1.6KMO	VSCF X345	345
	235 ETAOLD(K)=ETAO(K)	VSCF X346	996
	JF (.NOT. BODY) GO TO 109	70	8
	READ(10.500) MOSEO.JTAILD.(KBMCD(J).J=MOSEO.JTAILD)	SAVE	54
	DO 115 J = JNOSEO.JAILO	2	2
		10	1.
	77.0	SAVE	25
		2	2
	109 CONTINUE	20	2
ISN 0080	READ(10.501) (P.JUMPO(K):K=1.KMO)	SAVE	8
SN 0081	PJUMPO(KMO) = PJUMPO(KMO-1)	10	20

15N 0082	CH-11 21 CB		
	2011 21 21	2	1
1SN 0083	READ(10,501) ((PF(L,K,J),L=1,LM),K=1,KMD)	SAVE	22
	112 CONTINUE	20	2
-	103 CONT INUE	22	90
15N 0086	ITER = ITERO	10	91
-	WRITE(6.503) TITLE	SAVE	20
15N 0088	WRITE(6.511)KWRITE	VSCF X347	1967
	WRITE(6.513)K70LD.K80LD	VSCF X348	346
15N 0090	WRITE(6,450) ITERD,JMD,KMD,LMD,KTD	22	82
		22	63
	WRITE(6,455) (PJUMPO(K) K=1,KMO)	2	1
ISN 0093	WRITE (6.452)	75	95
15N 0094	WRITE (6.456) (XIO(J).J=1.JMD)	22	98
	(6.453)	2	87
		22	88
15N 0097	(6.454)	22	60
	WRITE (6.456) (ZTO(L).L=1.UIO)	2	06
		10	9.1
	CARREST INTERPOLATE TO FINER MESH IF MSHINT TRUE ASSESSESSESSESSESSES	#1C	36
		2	93
15N 0099	111 CONTINE	22	:
		10	8
	110 K =	10	96
	MPT(K) =	10	61
	31/2	10	8
	113 CONTINUE	10	8
	FINE = orange	70	100
15N 0107		22	101
	4 DO 5 K=1-KHAX	2	102
	5 PDUM (K) = DUMPT(K)	22	103
15N 0110	CALL GCALCT2.PDUM)	10	104
	JF(EXTMSH)GO TO 600	VSCF X349	349
15N 0113		VSCF X350	350
		75	106
	C****** READ IC FROM OLD COARSE EXTERIOR NESH SOLUTION ************************************		101
		10	108
	600 READ(10.500.END=123) ITERO.JMO.KMO.LMO.LWJO.KTO	184	200
	READ(10,501) (XIG(J),J=1.JHO), (ETAD(K),K=1,KMO), (ZTO(L),L=1,LMO)	SAVE	30
	IF ( NOT. BODY) GO TO 119	2	111
	READ(10,500) JNDSEO, JTAILO, (KBMXD(J), J=JNDSEO, JTAILD)	SAVE	31
1SN 0119	DO 125 J = JNOSEO.JTAILO	10	113
	N = MBMXD(3)	22	114
	_	SAVE	32
	00 122 J = 1.	2	116
		SAVE	33
15N 0124	WITE (0.450) ITEM SANDSKINGSKINGSKING	10	118
		10	119
15N 0126	WRITE(6.26) (XIO(J) =J=10,30)	2	120
		10	121
15N 0128	WALTEROODED (ETADIK) = 10KMU)	2	122
1210 NSI	WRITE (0,454)		
-		21	27

DATE 77.205/15.24.01

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VSCF X358
                                                                                                                                                                                                                                                                                                     126
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VSCF X384
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                                                                          PSCF X417
                                                                                   ISCF X362
                                                                                              VSCF X363
                                                                                                                                        ISCF X367
                                                                                                                                                  VSCF XA20
                                                                                                                                                              VSCF X421
                                                                                                                                                                        PSCF X370
                                                                                                                                                                                 VSCF X371
                                                                                                                                                                                           ISCF XA22
                                                                                                                                                                                                                            SCFX375
                                                                                                                                                                                                                                                            VSCF X378
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                                                                                                                                                                                                                                                                                                                                                                                                                                  PMSF X168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131
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READ IC FROM OLD VISCOUS SOLUTION seetseetseetseetseetseets
                                                                                                                                                                                                                                                                                                                                                                             C****** REMESH INTERPOLATION INTO INTERIOR GRID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /10X+17HP JUMPO(K) +K=1 +KMO)
                                          MEAD (10.501) (DDDSTU(K.J).J=1.NX)
MRITE(6.504)K.(DDDSTU(K.J).J=1.NX)
                                                                                              WRITE(6,505)K,(DDDSTL(K,J),J=1,NX)
DD 24 K=K70LD,K8OLD
                                                                                                                                        MRITE (6,506)K, (DXLSTU(K, J), J=1,NX)
                                                                                                                                                                                 WRITE(6,507) K, (DXLSTL(K, J), J=1,NX)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /10X+15HETAD(K) +K=1+KMD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /10X.14HX TO(3). J=1.JMO)
                                                                                     READ (10,501) (DDDSTL(K,J),J=1,NX)
                                                                                                                              READ (10,501) (DXLSTU(K.J).J=1,NX)
                                                                                                                                                                      READ(10,501)(DXLSTL(K,J),J=1,NX)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         453 FORMAT ( /10x+154ETAO(K)+K=1+KMU
454 FORMAT ( /10x+14HZTO(L)+L=1+LMO)
                                                                                                                                                                                                                           WRITE(6,508)K, (CPU(K,J), J=1,NX)
                                                                                                                                                                                                                                                                      WRITE(6.509)K.(CPL(K.). J=1.NX)
                                                                                                                                                                                                                 READ (10.501) (CPU(K.J), J=1,NX)
                                                                                                                                                                                                                                                           PEAD(10,501) (CPL(K,J), J=1,NX)
                                                                                                                                                                                                                                                                                         IF ( .NOT. MSHINT) RETURN
                                                                                                                                                                                                                                                                                                                                    IF( I VSMAX .LT.O) RETURN
                                                                                                                                                                                                                                                                                                                         IF ( .NOT . IVI SC) RETURN
                                                                DO 23 K=K70LD+K80LD
                                                                                                                                                                                           DO 26 K#KTOLD KBOLD
                                                                                                                                                 DO 25 K-K TOLD .K BOLD
                                                                                                                                                                                                                                      DO 27 K=KTOLD . KBOLD
                      20 22 K=K70LD .K80LD
                                                                                                                                                                                                                                                                                                                                                                                                                                  POUMER) = PJUMPTEK)
                                                                                                                                                                                                                                                                                                                                                                                                                                            CALL GCALC(2 .PDUM)
                                                                                                                                                                                                                                                                                                                                                                                                                        DO 160 K=1.KMAX
                                                                                                                                                                                                                                                                                                    FINE = .FALSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONO
                                                                                                                                                                                                                                                                                                                                                                                                   FINE = .TRUE.
                                                                                                                                                                                                                                                                                                                                                                                                              INTERP
                                                                                                                                                                                                                                                                                                               CALL INTERP
                                                                                                                                                                                                                                                                                                                                               CALL VTRANS
                                                                                                                                                                                                       NX=NXO(K)
                                                                                                                                                              (X)OXN=XN
                                                                                                                    WENXOUK)
                                                                                                                                                                                                                                                  NX=NXO(K)
                                (X)OKN=XN
                                                                                                                                                                                                                                                                                CONTINUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               450 FORMAT (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FORMAT (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                452 FURMAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       RETURN
                                                                                                                                                                                                                                                                                                                                                          RETURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ONS
                                                                                                                                                                                                                                                                                                                                                                                                              CALL
C********
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                                                                                                                                                                        +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15N 0174
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FORMAT( 5x. 8E10.4) FURNAT! 5X. 8F10.51

FORMAT(SE16.8)

0182

0183 0184 0185

0186 0187 0186

15 N 8 1 N 8

909

507

208 510

0189

010

0192 0193

15N 0195

1610

\*CRMAT(1615) FORMAT(20A4)

0130

SN

5AVE 36 18M 30 18M 31 VSCFX385 VSCFX386

FORMAT(///3H K=,13,/e19H DDDSTU(Ke,J),eJ=1eNXe/e(SE16e8)) FORMAT(///3H K=,13,/e19H DDDSTL(Ke,J),eJ=1eNXe/e(SE16e8)) FORMAT(///3H K=,13e/e19H DELSTU(Ke,J),eJ=1eNXe/e(SE16e8))

FORMAT(1H1, 10x, 21HOLD SOLUTION TITLE = ,20A4)

FORMAT(///3H K=,13,/,19H DELSTL(K,J),J=1,NX,/,(5E16,8)) FORMAT(///3H K=,13,/,16H CPU(K,J),J=1,NX,/,(5E16,8)) FORMAT(///3H K=,13,/,16H CPL(K,J),J=1,NX,/,(SE16,8))

FORMAT(///PH KWRITE==14)

FURMAT(12)

VSCF X388

VSCF X389

VSCF X390 VSCF X391 VSCF X392

VSCF X993 WITHFAIL SA49 FAIL SA50

FORMAT(//TH KTOLD=.14.5X.6HKBOLD=.14)
FORMAT(////10X. 934FROBLEM NO. 30-MSHINT = F IS INCOMPATIBLE
I VISCOUS SAVED SOLUTION. MSHINT RESET TO TRUE.///)

6002. SUBPROGRAM NAME 194 . PROGRAM SIZE

DIAGNOSTICS GENERATED

9

#STATISTICS# \*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*

SOURCE STATEMENTS =

92K BYTES OF CORE NOT USED

2

HE OLESTED OPTIONS OPT(2) . NOMAP

TIONS IN EFFECT NAME(MAIN) OPTIMIZE(2) LINECOAMT(55) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP		9
TIONS IN EFFECT NAME(MAIN) OPTIMIZE(2) LINECOLNT(55) SIZE(MAX) AUTODOL(NONE) SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTWT NOXREF ALC NOANSF TERM FL		AG(1)
TIONS IN EFFECT NAME(MAIN) OPTIMIZE(2) LINECOLNT(55) SIZE(MAX) AUTODOL(NONE) SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTWT NOXREF ALC NOANSF F		EPH FL
TIONS IN EFFECT NAME(MAIN) OPTIMIZE(2) LINECOLNT(55) SIZE(MAX) AUTODOL(NONE) SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTWT NOXREF ALC NO		ANSE T
TIONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINECOMMY (55) SIZE (MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NONECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF		ALC NO
TIONS IN EFFECT NAME(MAIN) OPTIMIZE(2) LINECONNT(55) SIZE(MAX) AUTODBL(NOT SOURCE EBCDIC NOLIST NOWECK OBJECT NOMAP NOFORMAT GOSTMT N	( )	MOXBEF
TIONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTO SOURCE EBCDIC NOLIST NINECK OBJECT NOMAP NOFORMAT G	DELINO	DSTMT
TIONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINECOLNT(55) SIZE(MAX SOURCE EBCDIC NOLIST NINECK OBJECT NOMAP NOFO	) AUTO	RMAT G
TIONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINECOLNT(55) SI SOURCE EBCDIC NOLIST NOMECK OBJECT NOMA	ZE (MAX	P NOFO
TIONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINECOLNT ( SOURCE EBCDIC NOLIST NOTECK OBJEC	55) 51	T NOM
TIONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINE SOURCE EBCDIC NOLIST NOMECK	COUNT	OBJEC
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CONTRIBUTIONS ACCORDANCE SOUR FOR USE AS SERVERSESSESSESSESSESSESSESSESSESSESSESSESSE			SABROUTINE INTERP	INE	INTE	8								-	PNTER	N
COMMON LARGA ATES PREVIOUSLY STORED SQLA FOR LESS 30.3 COMP  COMMON LARGA ATES PREVIOUSLY STORED SQLA FOR LESS 30.3 COMP  COMMON LARGA FET 30.2 COMP  COMP		U												-	NTER	•
COMMON   LARGN   FELLO, 30, 20   COMMON   LARGN   FELLO, 30, 30   COMMON   LARGN   FELLO, 30, 30   COMMON   LARGN   FELLO, 30, 30   COMMON   LARGX   COMMON   LARGX   COMMON   LARGX   COMMON   LARGX   COMMON   LARGX   COMMON   COMMON   LARGX   COMMON   COMMON   LARGX   COMMON   COMMON   LARGX   COMMON   COMMO		C*****	A INTER	POG.	ATES	4	EVIOUSLY :	STO	RED SOLN	OR .	USE AS	:	******		NTER	4
CCMMON   LARGA   FF(20,30,2)   VC(20,30,2)   CONF	2000			2 5			UNS - 1020 - 10 - 20 - 2	:			DOLD (20 - 3				ONE SY	
COMMON / LARGA / PF(20.30.90)   DJAK(330.90)   COMF		•		1			VC2(20.30.	23			VC(20,30.	-			OMF BX	38
1   DJKZ6130-90)   DJKZ6130-90)   CDHK     2   DJKK6130-90)   DJKC6130-90)   CDHK     3   DJKK6130-90)   DJKC6130-90)   CDHK     4   DJKR6130-90)   DJK1130-90)   CDHK     5   DJKR10(330-90)   DJK1130-90)   CDHK     6   DJKR10(330-90)   DJK1130-90)   CDHK     7   CDHK   X11(90)   X11(190)   X11(190)   TICK     8   ZCVU   X11(190)   X11(190)   TICK     9   CDHK   X11(190)   X11(190)   TICK     1   CDHK   X11(190)   X11(190)   TICK     1   CDHK   X11(190)   TICK   TICK     2   ZCVU   ZCVU   TICK     1   ZCVU   ZCVU   TICK     1   ZCVU   TICK   TICK   TICK     1   ZCVU   TICK   TICK   TICK   TICK     1   ZCVU   TICK   TICK   TICK     1   ZCVU   TICK   TICK   TICK   TICK   TICK     2   ZCVU   TICK   TICK   TICK   TICK   TICK     3   ZCVU   TICK   TICK   TICK   TICK   TICK   TICK     4   ZCVU   TICK   TICK   TICK   TICK   TICK   TICK     5   ZCVU   TICK   TICK   TICK   TICK   TICK   TICK   TICK     1   ZCVU   TICK	9000		NOWWO	3	RGN		PF (20.30.9	100			DJK1(30.9		•		OMF IX	
2 DJKK(130,90) DJK(130,90) CDK(130,90) CDK		-					DJK2(30.90	6			DJK3(30+9	6	•		OMF IX	9.
3		2					DJK4(30,90	6			DJK5(30.9				OMF IX	1
DAKING   DAKING   DAKING   DAKING   ODKING   O							DJK6130,90	10		•	DJK7 (30 +90	11			OMF IX	
COMMON   LARGX   PC(20,20,30)   DJKI11(30,90)   COMPRINE   X11(90)   ETA(20)   TT(20)   X11(90)   TT(20)   TT(20)   X11(90)   TT(20)   T		•					DJK8 (30,90	6			DJK9(30.9	6			UMF PX	64
COMMON   LARGX   PC(20,20,30)   OJKIOK(20,30)		9					DJK10(30.9	00		•	DJK11(30.	00		0	OMF 1X	20
1	9000				RGX		PC (20,20,3	30 )			DJK10X120	30	•		OMF IX	52
COMMON / INTER / X1(90) . ETA(30) . 77(20) . XIN(90) . TIL(90) . XIR(90) . ETAL(30) . LWINX . ZAVUX .							DJK11X(20,	30	•		DJK1X(20.	30		٠	OMF 1X	53
XIL(90)	9000				TER		(06) IX		ETA(30)	•	ZT(20)		(06)NIX		NTER	~
2 ETAC(30) - ETAR(30) - COEU - COEL - COEL - COUNTY - COU		•					XIL(90)		XIC(90)		XIR(90)		ETAL(30)		NTER	•
3		2					ETAC(30)		ETAR (30)	•	COEU		COEL		NYER	4
### POUM(30) - EDUM(30) - XMIN - XMAX  *** YMAX - ZMAX - YMIN - ZMIN - Z		3					ZCWU		שרע	•	ZRVL	•	ZCM	-	NTER	10
5 YMAX 5 ZMAX 6 YMIN 7 ZMIN 6 COMMON / EXTER / XIEX(30) 6 FTAX(20) 7 XTX(20) 7 XTX(30) 6 FTAX(30) 7 XTX(20) 7 XTX(30) 7 XTX(30		4					POUM (30)		EDUM (30)	•	XMIN		XMAX		NTER	9
COMMON / EXTER / XILX(30) - ETAX(20) - XTRX(30) - XTINX(30) - XTIN		•					YMAX		ZMAX	•	AMIN		NIMZ		NTER	
COMMON / EXTER / XIEX(30) - XICX(20) - XIRX(30) - XINX(30) - XILX(30) - XICX(30) - XIRX(30) - XINX(30) - XINX(		9					ZW		ZAW.						NYFR	•
XILX(30)   XICX(30)   XICX(30)   ETALX(30)     ETACX(20)   ETARX(20)   XMAXX     YMAXX   ZMAXX   XMAXX   XMAXX     SALVIX   ZMAXX   XMINX   ZMINX     SALVIX   ZMAXX   XMAXX   ZMINX     SALMINX   XMAX   XMAX   XMAX   XMINE   XMINE     JMAX   KMAX   KMAX   LMAX   KMOD     JMTE   JTE(30)   LWINGL   LWINGU     JMAX   KMAX   LMAX   KMOD   TMINGU     LWINGUX   LWINGLX   JMAXX   KMAXX   KMOD     LWINGUX   LWINGLX   JMAXX   KMAXX   KMAXX     LWAXX   KMAXX   MAXX   MAXX   KMAXX     LWAXX   KMOD   MAX   MAXX   MAXX     LWAXX   KMOD   JM   MB   MB     SALMIC   MB   MB   MB   MB     SALMIC   MB   MB   MB   MB   MB   MB     SALMIC   MB   MB   MB   MB     SALMIC   MB   MB   MB   MB     SALMIC   MB   MB     SALMIC   MB   MB   MB     SALMIC   MB   MB     SALMIC   MB   MB   MB     SALMIC   MB   MB   MB     SALMIC	1000				TER		XIEX(30)		ETAX (20)	•	ZTX(20)		XI NX (30)		XTER	N
ETACX(20) • ETARX(20) • XMINX • XMAXX • ZMAXX • ZMAXX • ZMAXX • ZMAXX • ZMAXX • ZMINX • ZMINX • ZMINX • ZMUX • ZCVLX • ZCVLX • ZLVUX • ZCVLX • ZCVLX • ZLVUX • ZCVLX • ZCVLX • ZLE(30) • LMAX • LMX		-					XIEX (30)		XICX(30)	•	XIRX (30)		ETALX(30)		XTER	•
3 YMAXX		2					ETACX(20)		ETARX(20)		XMIMX	•	XMAXX		XTER	
## ZLWLX		2					YMAXX		ZMAXX	•	WINX	•	ZMIMZ		XTER	8
5 ZPVUX . ZCVUX . COMMON / INDEX / JMAX . KMAX . LMAX . KTMI . JWLE . JEE (30) . LWINGU . LWINGU . LWINGU . LWINGU . LWINGU . JWTE . JTE (30) . LWINGU . JEX (20) . JEX (		4					ZWX		ZRVLX		ZCMLX		ZLVUX		XTER	•
COMMON / INDEX / JWAX   CLMAX   CLMAX   COMMON / INDEX / JWTE   JTE(30)   LWINGL   JWLE   JLE(30)		2					ZPWUX		ZCVUX					-	XTER	
1 KTIP . KTIP1 . JWLE . J.E(30) . JWLE . J.E(30) . JWAX1 . JWAX1 . LWINGL . LWINGU . J.E. J.E. J.E. J.E. J.E. J.E. J.E. J	8000		NOWWO	1			JMAX		KMAX	•	LMAX		KTM1		NDEX	2
2 JWTE JAF(30) - LWINGL . LWINGU . LWINGU . JMAX1 . KMAX1 . LWINGU . KMAX1 . LWAX1 . KMOTT . LWAX1 . KMOTT . LWAX1 . KMOTT . LWAX2 . KTPL . JLWAXX . KTPLX . JLWAXX . KTPLX . JLWAXX . KTPLX . JLWAXX1 . KMAXX1 . KMAXX1 . KMAXX1 . LWNGLX . JMAXX1 . KMAXX1 . KMAXX1 . LWNGLX . JMAXX1 . KMAXX1 . KMAXX1 . LWAXX1 . MBIN(2) . JMIX . JMAXX1 . MBIN(2) . JMAXX1 . JMAXX1 . MBIN(2) . JMAXX1 .		-					KTIP		KTIPI	•	JWLE	•	JE(30)	-	NDEX	m
3 JMAXI		2					JWTE		JTE (30)		LW ING.		CHINGO		NDEX	4
JP1  INDEXX / JMAXX  KTMIX  KTMIX  KTMIX  KTMIX  KTMIX  KTMIX  KTMIX  KTMIX  LMAXXI  LMAXXI  LMAXXI  LMAXXI  REDDVI / SNUSE  JTAIL  ALPHAB  NBTS(90)  KRBMX(90)  LMX  CFL(15)  GFK(15)  GFK(15)  GFK(15)  ACL(2)  RGD(2)  CCL(2)  BTYPE  XRBU(90)  NRBU  NRBU  KRBU  KRB		9					JM AX 1		KMAXI		CMAXI	•	KROOT		OMF IX	~
COMMON / INDEXX / JMAXX , CMAXX , CMAXX , KTMIX , LWAXX , KTTPX , JLEX(20) , JTEX(20) , JTEX(20) , LWNGUX , LWNGLX , JMAXXI , KMAXXI , LMX , MBDTS(90) , R(90) , RBMX(90) , LMN , LMX , MFK(15) , BFK(15) , GFK(15) , GF							100							_	NDEX	9
1 KTIPX , KTIP1X , JLEX(20) , JTEX(20) , JTE	6000		NOWWO		DEXX		JWAXX		KMAXX	•	LMAXX		KTM1X		NDE XX	~
2 LWNGUX LWNGLX JMAXXI KMAXXI KMAXXI MAXXI KMAXXI KROOTX JPIX  COMMON MODOS TATAIL MAIN(2) MOSE MOSE MOSE MOSE MOSE MOSE MOSE MOSE		-					KTIPX		KTIPIX	•	JEX (20)		JTEX (20)	-	NDE XX	•
3 LMAXXI		8					LWNGUX	-	MNGLX		JMAXX1	•	KMAXX1	-	NDE XX	•
COMMON / BODV1 / XNOSE		3					LMAXXI		KROOTX		JP1X			-	NDE XX	8
JBUP(2) JBDN(2) JNOSE  ALPHAB NBPTS(90) R(90)  LMN LMX AFK(15)  GFK(15) AFL(15) BFL(15)  BCL(2) CCL(2) BTYPE  XRBL(90) DZRBU(90) DZRBL(90)  NRRL  KRBL  XNOSEX XTA1LX YOR	0010				110		XNOSE		KTAIL	•	NB IN (2)	•	XBIN(2.35)		100	2
ALPHAB . NBPTS(90) . R(90) . LMN . LMX . AFK(15) . GFK(15) . GFL(15) . GFR(190) . DZRBL(90) . DZRBL(90) . MRBL . YRB . ZNDSEX . JTAILX . YOB		-					NBODS		JBUP(2)	•	JBDN(2)		SON		000	m
LMN . LMX . AFK(15) . GEK(15) . AFL(15) . BFL(15) . BFL(15) . BFL(15) . BCL(15) . GEK(15) . BCL(2) . GTYPE . XRBL(90) . DZRBL(90) . DZRBL(90) . WRBL . YRB . ZNDSEX . JTAILX . YOB		2					JTA1L		ALPHAB	•	NBPTS(90)		R(90)		100	
GFK(15) . AFL(15) . BFL(15) . ABL(15) . BBL(15) . GBL(15) . BCL(2) . CCL(2) . BTYPE . XRBL(90) . DZRBL(90) . NRBL . YRB . ZRBU . XNOSEX . XTA1LX . YOB		3					KBMX(90)		CMN		CMX		AFK(15)		100	
ABL(15) . BBL(15) . CBL(15) . BCL(2) . CCL(2) . BTYPE . XRBL(90) . DZRBU(90) . DZRBL(90) . NRBL . YRB . ZRBU . XRBAXX(30) . JNDSEX . JTAILX .		•					BFK(15)		GFK(15)	•	AFL(15)		BFL(15)		Agu	
. BCL(2) . CCL(2) . BTVPE XRBL(90) . DZRBL(90) . DZRBL(90)		9					CFL(15)		ABL(15)		BBL(15)		(SL(15)		000	~
. XRBL(90) . DZRBU(90) . DZRBL(90) NRBL YRB ZRBU KRMXX(30) . JNDSEX . JTAILX XNDSEX . XTAILX . YOB		•					ACL(2)		3CL(2)	•	CCF(5)		BTYPE		000	80
KBMXX(30) JNDSEX . JTAILX . XNDSEX . XTAILX .		1					XRBU(90)		XRBL (90)		DZRBU(90)		DZRBL (90)		HEN !	-
* KBMXX(30) * JNDSEX . JTAILX . XNDSEX . XTAILX . YOB		æ					NRBU		WRRL	•	YRB		ZRBU		Van	10
* XNOSEX . XTAILX . YOR		6					ZRRL		KBMXX(30)		JNOSEX	•	JTAILX		100	=
									Company of the last of the las				•			

EL	2.2	(SEPT 76) INTERP	087360	O FORTRAN H EXTENDED	EXTENDED	DAT	DATE 77. 205/15.24.22	2
		-	KBOD (30,90)		LBU(20.90).	LBU(20,90), LBD(20,90), COMF IX24	COMF TX24	
		0	NBPTSX(30).	LB(00 : 30 : 90)	•		COME 1X25	
		m •	LBUX (20,30)		LBDX (20 . 30)	•	COMP 1X26	
2	CH WAS	· ENGOS · MONTO					STATE SE	
;	***		Y MAIL	I BITX	DACI1/30.00)	•	COME 1430	
			KBS	RRCL (30-90)			COMP PX 30	
		£	PBCUX (20,30)	•	PBCLX(20,30)	を 日本 の 日本	COMF 1X31	
		•	DRBCU .	DRBCL .	DRBCUX ,	DPBCLX .	COMF 1X32	
		s	SALPH(90) .	SALPHX (30)			COMF 1X33	
SN	0013	COMMON / BODYBC	. IBUD .	IBLD .	1851DE .	ETABULION .	COMF 1X34	
		•	FTABL(10) .	ZBOD(20) .	NRRS .	XRBS(100)	COMF 1X35	
SN	0014	COMMON / OLD /	. (06)UIX	ETAD(30) .	ZT0120) .	PJUMPO(30).	מרט 2	
		•	LBUD(20.90)		LBD0(20.90)	•	MLD 3	
		2	PJUMPT(30).	KBMX0(90)	· OMC	KMO .	• 370	
		3	LMD .	STAILD .	MOSED .	FARO	טרט צ	
		•	FINE				ور و	
SN	00 15		FINE				COMP IXAO	
SN	9100	COMMON / FLAGS /	IDISK .	ISAVE .	IPLOT .	WSHINT .	FLAGS 2	
			SOLV .	WBCPRT .	BRCPRT .	BODY .	FLAGS 3	
		2	FCR .	ISPAN .	IFINE .	1CRUDR .	INPTX 1	
		2	EXTINSH .	REMESH .	IMAPR .	. AVA	INDIX 2	
			IBUMP .	IVISC .	. TRIBI	FOILT .	INPTX 3	
		9	IBODIN .	AXISAM .	AREA .	TBLOUT	INPTX 4	
SN	SN 0017	LOGICAL	rorsk .	ISAVE .	IPLOT .	WSHINT .	COMP TX 4	
		-	sorv .	WBCPRT .	BBCPRT .	BODY .	COMP TX 5	
		2		ISPAN .	IFINE .	ICRUDR .	COMP IX 6	
		n	EXTWSH .	REMESH .	IMAPR .	YAW .	COMF IX 7	
		STATE OF THE PARTY	IBUMP .	IVISC .	TTWIST .	FOILT .	COMF FX 8	
		5	IBODIN .	AXISYM .	AREA .	IBLOUT	COMP IX 9	
SN	90 18	DIMENSION	PP (20,20,30	PP (20,20,30),P(20,30,90)	•		16# 32	
SN	6100	EQUIVALENCE	(PP(1) .PC(1	(PP(1) .PC(1)), (P(1), PF(1))	11)		18M 33	
		•					INTERPIO	
SN	00 20	DIMENSION	XNEW(90) .	. ENEW(30) .	ZNEW(20) .		COWF 1142	
		•	LBUNEW(20,90)	. (0	LBDNEW(20,90)		COMF 1143	
		2	KBNEW(90) .	. PD(20,90) .	PDUMI120 +30)	•	COMP 1144	
		R	KNDK (30) .	. DY(30) .	LNDX (20) .	02(20)	COMF 1145	
SN	0021	FOUTVALENCE	(XNEW(1),MU(1,1,1))	(1,1,1))	(ENEW(1) .MU(1,10,11)	1.10.11)	18M 34	
		•	(ZNEW(1),MU(1,20,1))	(11.20.1))	(LBUNEW(1), POLD(1))	ים בסנווווייי	18H 35	
		2	(LEDNEW(1).VC2(1))	vc2(11)	(KBNEW(1),VC(1,1,2))	(11-11-2))	18M 36	
		U					INTERP27	
S	00 22						INTERPZE	
SN	0023	00 610 K					INTERP29	
S	00 24						PINTERPED	
SN	0025	010 mp(I . W) = 0.0					INTERPRI	
		Child of the County of the Cou	The contract of				INTERNACE OF THE PARTY OF THE P	
		Comment Interporation	Own .				PATEROSA	
SN	9200		30 TO 2				INTERPSS	
		·					INTERPSE	
		C***** SET UP TO INTERPORATE P ON FINE INTERIOR MESH	ERPORATE P ON	FINE INTER!	OR MESH		INTEROST	
-	-	0					INTERPAR	
SN	SN 0028	JNEW = JMAX					INTERP39	

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DATE 77.295/15.24.22
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                                                               INTERPA
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                                                                                                                                                                                                                                                     FPICK
                                                                                                                                                                                                                                                               100 PJUMPT(K) = PJUMPO(KO-1) + (PJUMPO(KO) - PJUMPO(KO-1))*(ETA(K)-1)  
1    ETAD(KO-1))/(ETAO(KO)-ETAO(KO-1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cossesse Interpolate below then above wing seesessessessessessesses
C
                                                                                                                                                                                                                                                                                                                     OS/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                 IF (ET.LE.ETAD(KD)) GO TO 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                     LBONEW(K.J) = LBUX(K.J)
LBONEW(K.J) = LBDX(K.J)
                                                                                                                    LBUNEV(K.J) = LBU(K.J)
LBONEV(K.J) = LBD(K.J)
                                                                                                                                                                                                          ET = ETAIK) + .000001
                                                                                                                                                                                                                                                                                                                                                                                                                       KENEW(J) = KBMXX(J)
                                                                                     KBNEW(J) = KBMX(J)
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                                                                                                                                                                                                                                                                                                                                                                                                            MENLJ) = XIEX(J)
                                                                                                                                                                                                                                                                                                                                                                                                                                  00 34 K = 1 .KNEW
                                                                                               DO 30 K = 1 .KNEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DO 36 L = 1.LNEW
                                                             DO 30 J = 1. SNEW
                                                                                                                                                                         DO 32 L = 1, LNEW
                                                                                                                                                                                                                                                                                                                                                                                                 DO 34 J = 1, JNEV
                                                                                                           ENEWIK) = ETA(K)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZNEWIL) = 2TXIL)
                                                                                                                                                                                                                     DO 102 KO=2,KMO
                                                                          XNEW(J) = XI(J)
                                                                                                                                                                                      ZNEWIL) = 2T(L)
                                                                                                                                                                                                                                                                                                                                                                            LINDNEW = LWNGUX
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                                                    LWLNEW = LWINGL
INTERP
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                                                                                                                                                                                                                                                                                                                                                      CNEW = KMAXX
                                                                                                                                                                                                                                                                                                                                                                LNEW = LMAXX
                      KNEW = KMAX
                                                                                                                                                               KRT = KRNOT
                                CNEW = LWAX
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LEVEL 2.2 (SEPT 76)
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                                                                                                                                                                PA = POUMI(LM*KM) + (PDUMI(LD*KM) - PDUMI(LM*KM))*DZL
PB = PDUMI(LM*KD) + (PDUMI(LD*KD) - PDUMI(LM*KD))*DZL
PD(L*K) = PA + (PB - PA)*DYK
                                                                                                                                                                                                                                                                                             C******* INFINITE RECTANGULAR BODY - Y.Z OF SIDES CONSTANT
C
05/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DZL = (ZNEW(L) - ZTO(LM))/(ZTO(LO) - ZTO(LM))
PA = POUMI(LM,KM)+(PDUMI(LO,KM)-PDUMI(LM,KM))+DZL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PB = POUMITLM.KO)+(POUMITLO.KO)-POUMITLM.KO))*DZL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JF (LO-1.6E.LBO) GO TO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LO = LNDX(L)
IF (LO «LE» LAO) GO TO 11
                                                                                                                                                                                                                                                    IF ( -NOT - BODY) GO TO 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PD(L +K) = PA+(PB-PA) *DYK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F (K.EO.KRT) GO TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DO 10 L = LAP1.LBM1
                                                                            DO 202 L = 1,4MEY
LO = LNDX(L.)
LM = LO - 1
DZL = DZ(L.)
                                                                                                                                                                                                                                                                                                                                                                            LAP1 = LA + 1
LBM1 = LB - 1
LAO = LBDO(1,1)
LBO = LBUO(1,1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DO 50 K = 1.KRT
KO = KODX(K)
KM = KO - 1
                                                                                                                                                                                                                                                                                                                                        LA = LBONEW(1.1)
                                                                                                                                                                                                                                                                                                                                                            LB = LBUNEW(1.1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  = KBNEW(J)
INTERP
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                                                              = DY(K)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     = DY(K)
                                          = K0 - 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C***** INTERIOR
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DATE 77. 295,	INTERZI	INTER22	INTERES	INTERP	INTERZZ	FRICK 15
DS/360 FORTRAN H EXTENDED		LO) - ZTO(LM))	PA = POUMICLM.KM) + (PDUMICLO.KM) - POUMICLM.KM))+DZL	PB = POUMICLM.KO) + (PDUMICLO.KO) - POUMICLM.KO) #02L		
092/300		ZTO(LM))/(ZTO()	+ (PDUMICLO+K	+ (PDUMICLO + KI	H - PAJ *DYK	
INTERP	14 LM = LO - 1	DZL = (ZNEW(L) - ZTO(LM))/(ZTO(LO) - ZTO(LM))	A = POUMICLM.KM	B = POUMICLM .KO)	POLL MY = PA + (PB - PA) + DYK	
16)	14.	0	•	•	۵	
(SEPT						U
2.2	1710	0172	0173	0174	0175	
LEVEL 2.2 (SEPT 76)	ISN	ISN 0172	ISN	ISN	ISN	

70 S0		GO TO 16	
1F (K.LT.KRT) GO TO 50	KO = KNDX(K)	15 IF (KO-1.GE.KRT) GO TO 16	KO = KO41
15	Q¥	15 IF	2

Castates SIDE

2	3	16 KM	DWK
KO = KO+1	GO TO 15	16 KM = KO-1	= (ENEW(K)-E
			DYK = (ENEW(K)-ETAO(KM)) /(ETAO(KO)-ETAO(K
			KO) -ETAO(K

1184	DYK = (ENEW(K)-ETAO(KM))/(ETAO(KO)-ETAO(KM))
1185	PO 22 L=LAP1, LBM1
9186	LD = LNDX(L)
187	¥ = 10-1
9118	021 = D2(F)
9189	PA = POUMITLM OKM)+(PRUMITLOOKM)-POUMITLM OKM)) +DZI
0610	PB = PDUMI(LM.KD)+(PDUMI(LO.KD)-PDUMI(LM.KD))+DZE

FRICK 24 FRICK 27 FRICK 28 FRICK 30 FRICK 31 FRICK 31 FRICK 33 FRICK 33 FRICK 34

FRICK 24 FPICK 25

FRICK 23

CA-MISTANGE CON-COLONIA (CA-MISTANGE = 80	A = POUMICLM OKM )+ (Prom	PA = POUMICLM KM + (PRUMICLO KM )-POUMICLM KM)
TO THE PARTY OF TH	B = POUMITLM . KO)+(PEUM	I (LO,KO)-PDUMI (LM,KO

TA = HUMICLM SKM )+ (PIDMICLOSKM )-POUMICLM S	PB = POUMITLM .KO)+(PDUMITLO.KO)-PDUMITLM	22 PD(L oK) = PA+(PB-PA) #DYK	SO CONTINKE	195 WRITE (12) ((PD(L.K) .L=1 .LNEW) .K=1 .KNEW)	

	4010	THE WALL TO THE TAIL
ISN	15N 0190	PB = POUMITLM,KO)+(PD
ISN	1610	22 PD(LoK) = PA+(PB-PA)4
ISN	0192	SO CONTINUE
ISN	0193	195 WRITE (12) ((PD(L,K)
ISN	9610	REWIND 12
ISN	9610	IF ( NOT. FINE) GO TO
ISN	0197	DO 600 J=1. JMAX
ISN	0196	600 READ (12) ((PF(LoK.J)
ISN	0100	REVIND 12
ISN	0200	RETURN
ISN	0201	207 CONT INKE
ISN	0202	DO 601 J = 1.JMAXX
ISN	0203	601 READ (12) ((PC(L.K.J)
ISN	0204	REVIND 12
ISN	0205	RETURN
ISN	9020	END

INTERESS INTERESS INTERESS INTERESS

INTER238

INTERZZA INTER237

INTER228

INTEREST

NTERESO

NTEREST

 O 601 J = 1. JMAXX	13 601 READ (12) ((PC(L.K.J)	EVIND 12	ETURN	679
٥	801 R	•		•
12	13	*	2	2

OL=1 . LMAXX) .K=1 .KMAXX)

	DUMP	
	FLAG(1)	
	TERM	
	NOANSF	= PNTERP
	A.C.	NAME
DIE)	NOXREF	ROGRAM
MOBLIN	GUSTMT	. sum
(MAX) AUT	EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP	205. PROGRAM SIZE = 14354. SUBPROGRAM NAME = INTERP
5) SIZE	NOMAP	SIZE =
COUNT ( 5	OBJECT	PROGRAM
) LINE	NUCECK	205.
IMIZE	NOLIST	" %
IN) OPT	EBCDIC	SOURCE STATEMENTS =
NEINA	JURCE	SCE ST
FFE CT *N	FFECT*S	SOUR
Z Z	IN E	\$
*OPTIONS IN EFFECT*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)	*OPTIONS IN EFFECT*SOURCE	*STAT I STICS*

DIAGNOSTICS GENERATED ş \*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

116K BYTES OF CORE NOT USED

LEVEL 2.2 (SEPT 76)

RECUESTED OPTIONS OPT(2) . NONAP

PTION	S IN EFFECT	DPTIONS IN EFFECT NAME(WAIN) OPTIMIZE(2) LINECOLNT(55) SIZE(MAX) AUTOBBL(NONE) SOURCE EBCDIC NOLIST NOVECK OBJECT NOMAP NOFORMAT GOSTMT NOX	2) LINECOUN	T(55) SIZE	WAX) AUTOR	STHT MOXE	F ALC	HOANSF TE	IN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) EBCDIC NOLIST NONECK OBJECT NOMAP NOFOPMAT GOSTWT NOXREF ALC NOANSF TERW FLAG(1) DUMP
ISN	15N 0002	SUBROUTINE SOLVE (ITER, ITERF, CONVG)	(ITEP . ITERF	CONNG)				SOLVE 2	
								SOLVE 3	
		COSSESSES SOLVE IS THE C	CONTROL SUBROUTINE	DUTINE FOR	I	GORITHM .	*****	SOLVE A	
ISN	ISN 0003	COMMON / LAPGN /	PF (20,30,90)	10	. DJK1 (30,90)	(06	•	COMP 1X45	
		-	DJK2(30,90)	•	. DJK3(30.90)	106	•	COME 1X46	t.
		2	DJK4(30.90)		. DJK5(30,90)	106	•	COMP DX47	
			DJK6(30,90)	•	. DJK7(30,90)	106	•	COMF TXAB	
		The state of the s	DJK8 (30,90)		. nJK9(30,90)	106	•	COMF IX49	
		•	DJK10(30,90	(0)	. DJK11(30,90)	(06.		COMF 1X50	
ISN	ISN 0004	COMMON / INTER /	(06)1X	. ETA(30)	. 27(20)	. XIN(90)	. (04	INTER 2	
			XIL(90)	. XIC(90)	. XIR(90)	. ETAL (30)	301	INTER 3	
		2	ETAC(30)	. ETAR(30)	· COEU	· COEL	· Colonia	INTER .	
		3	ZCMI	· ZW	. ZRM	. ZCM	•	INTER S	
			POUM (30)	. EDUM(30)	NIWX .	. XMAX	•	INTER 6	
		9	YMAX	. ZMAX	NIMA .	NIMZ .	•	INTER 7	
		•	ZLWU	· ZRWU				INTER 8	
ISN	1SN 0005	COMMON / INDEX /	SMAX	. KMAX	. LWAX	. KTM1	•	INDEX 2	
		-	KTIP	. KTIPI	. JULE	. AE(30)	. (08	INDEX 3	
		2	JUTE	, JTE(30)	. LWING	. LWINGU	. 0.	INDEX 4	
		3	JMAX1	. KWAXI	. LMAX1	. KROOT		COMF IX 1	
			105					INDEX 6	
ISN	1SN 0006	COMMON / FLAGS /	IDISK	. ISAVE	. IPLOT	. MSHINT		FLAGS 2	
			SOLV	. WBCPRT	. BBCPRT	. 80DY		FLAGS 3	
		2	FCR	. ISPAN	. IF INR	. ICRUDE	•	INDIX 1	
		3	EXTMSH	. REWESH	. IMAPR	. YAW	•	INPTX 2	
			TRUMP	· IVISC	. ITWIST	. IFOILT	. 1.	INPTX 3	
		c	IBODIN	. AXISYM	. AREA	. IBLOUT	E	INDTX 4	
ISN	15N 0007	LOGICAL	MSIGI	. ISAVE.	. IPLOT	. MSHINT		COMP IX 4	
Long Co.			SOLV	. WBCPRT	. BBCPRT	· BODY		COMP IX 5	
		2	FCR	. ISPAN	. IF INR	. ICRUDA		COMP IX 6	
			EXTMSH	. REMESH	. IMAPR	. YAN	•	COMP BX 7	
			IRUMP	. IVISC	. ITWIST	. IFOILT		COMP IX 8	
		•	IBIDIN	- AXTSYM	. ARFA	. IBLOUT	-	COMF IX 9	

. RELAXP 2	. PELAND 3	. PELA XP 4	. RELAND 5	. PELAND 6	. REMESH 3	REME SH A	. JUMP 2	. COMF TX14	. COMF IXIS	COMF 1X16	COMF TX42	COMF 1X43	. PARM 2	. PARM 3
. PNCR	. RSUB	. EPSEX	. KRD	. KE	. NSUP		. 82L		1060	0.30)		100		. ODE
MAXITX	RTESTX	EPS	SRD	3	KOUNT		920	COFF	PCUEF (30	PJUMPX (2	TW15T(30	WBCJ (30.	A3	MACHIN
. MAXITM .	. RTEST .	. RESTOJ(30).	. WIX .	. BIGBL .	. ERROR . KOUNT		•		•	•	•	•	•	. GAMMA .
/ MAXIT	INCRX	RSUBX		280	LE	IPASS	AZV	CZO	PJUMP (30	KP INDX (3	/ ZIM	WACL (30,90)	N1	AS
N / PELAXP					5 LE , ERROR		/ JANN / N				COMMON / WINGBC		COMMON / PARM /	
COMMO	1	2	6		2	9	COMMO	1	2	3	COMMO	-	COMMO	1

15N 0009

15N 0010 15N 0011

	NB	CC2	EMEXP(2) .	CK1(30)	OK2(30)	COMFIXED
	•	CK52(30,90)		CK1X(30)	CK2X(30)	COMF IXEE
	5	BLR.	WCDE			COMF 1X12
0013	DN / 800V1	/ XNOSE	XTAIL .	WBIN(2)	XBIN(2,35)	. BODY 2
			JBUP(2) .	JBDN(2)		
	2	JTAIL .	ALPHAB .	NBPTS(90) .	R(90)	+ BDDV +
	m	KBMX(90) .		LMX .	AFK(15)	BODY 5
	WAY BUILDARING SOME	BFK(15) .	GK(15) .	AFL(15) .	BFL(15)	9 AGON 6
	0	GFL(15) .	ABL(15) .	BBL(15)	CBL(15)	, 8CDV 7
	• • • • • • • • • •	ACL(2)	BCL(2) .	CCF(5)	BTYPE	8 AGON 8
	7. garden 2. 1.15 pk	XRBU(90) .	XRBL (90) .	DZRBU(90) .	DZRBL(90)	CHEN 1 1
	Sections: Sections: A	NRBU .	MARIL .	YRB .	ZRBU	. BODY 10
	•	ZRBE	KBMXX(30) .	MOSEX	JAILX .	800V 11
			XNOSEX .	XTAIC.	Y08	FIXCA I
100	COMMON / BODY2	/ FX(30.90) .	FY(30.90) .	FZ(30,90)		
	- Action of the Control of	KBOD (30.90)	•	LBU( 20.90).	LBD(20.90).	
	8	NBPTSX (30).	LB00(30,90)			COMF 1X25
	n	LBUX(20,30)		LBDX (20 . 30)		COMF TX26
			CPS(20,90)			
0015	COMMON / BODY3	/ KBMAX .	KBMAXX .	ראר	LEBU.	. BODV 18
	TO SERVICE OF SERVICE	LLRLX .	LLBUX .	RBCU(30,90)		COMF 1X29
	2	KBS .	RBCL (30,90)	•		COMF 1x30
	2	RBCUX (20.30)	•	RBCLX(20 +30)	•	COMF 1X31
	•	DRBCU .	DRBCL .	DRBCUX .	DRBCLX	COMF TX32
	9	SALPH( 90) .	SALPHX (30)			COMF 1X33
ISN 0016	COMMON / RODYBC	/ IBUD .	IBLD .	IBSIDE .	ETABU(10)	COMF 1X34
	Total I or De service	ETABL(10) .	ZBOD(20) .	NRBS .	XRBS(100)	COMF 1X35
ISN 9017	COMMON / XYCOE /	. 106.0E)X	XI F( 30 .90).	XIXI30)		COMF 1X18
	1 C.	XIVJ(30.90)	S. S. State Contract &	xx (30)		COMF 1X19
	8	XIW (30,90)				COMF 1X20
ISN 0018	COMMON / SCRACH	/ MU(20,30.2)		POLD (20,30,3)	3)	COMF 1X37
	- Bernald St. of Alberta	VC2(20,30,2)	•	VC(20,30,2)		COMF 1X38
9100	COMMON / WING /	YRIDT .	XLER .	XTER .	WIP .	WING 2
		ALET .	xTET .	SREF .	SWEEP	INPTX 7
	2	NLE!	YLE1(10) .	XLE1(10) .	STRUE .	INPTX 8
	F	NTE!	YTE1(10) .	XTE1(10) .	SXPOS	INPTX 9
	A COLD CONTRACTOR	CROOT .	SSPAN	THICK(II)	ZWNGWL.	NPTX 10
	•	NP AN	W(111)	THE TP(11) .	NTWST	AIRFOILS
	9	YTHST(11) .	INUX(11)	INLX(11)	XF(180.11)	AIRFOILS
	7	ZF (180 , 11) .	KSMTHS(11).	* MOMX	XLE(30)	INPTX 11
		XLEW(30) .	CORD(30) .	CORDW(30)	CORDIN(11).	WING TO
	•	XTE(30) .	REACT .	CMEAN .	XTEW(30)	WING 11
	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· OSN	NS1	KX0(12)	KX1(12)	AIRF OTER
	8	NXO(12)	NX1(12) .	YX0(12,10).	W1(12,10)	AIRFOIL9
	U	xx0(12,10),	XX1(12,10),	DXR0(12) .	DXR1(12)	AIRFOITO
	٥	DXT0(12) .	DXT1(12) .	ALPHAN .	MIPLE .	AIRFOIL!
	W	MTJPX1	XEWX(30) .	XTEWX(30)	CORDX	CHOPD 1
		CAV .	. AOX	XLEWP(30) .	XTEWP (30)	VSCFX3 1
		KSWICH				VSCF X3 2
15N 0020	, out , manual					
220	- OF - SEES	• 10011	DE2(90)	DE3(90)	DH1(90)	, LCO 2

	-							
COMMON / EDLT / GFF , ERSPELOO), FRRETIOOD),  2 COMMON / VANDET / KIX , KXX , XX			2	DL.3(90)				130
Description	0021		COMMON / EPLT /		ERROF		78	COMP IXSS
2 CDMMON / VANOFY KIX			•	RSDOF	RSDF (1000)		· ERROX .	COMF 1X56
0022 CDMMIN / VANDRY / KIX			N	CRRX(1000).	×	. RSDOX	. RSDX(1000)	COMF 1X57
1	00 22		COMMON / YANDPT	KIX .	KZX	. K3X	. K4X .	COMF IX87
2			-	KSK .	кех	. K7X	. K8X .	COMF IXA6
CONHON YWAI			N	. XIO	KMIX			CUMF TX89
DIMENSION ALSO, • B120) • C120) • C120	0023		COMMON /YAW1/	T(20.90) .	12(20.90)			FIXCM 2
2 PAMEW(20) • PXP(20) • PX	90 24		DIMENSION	A(20)	8(20)	. C( 20 )	. D(20)	SOLVE 19
3			2	PJNEW(30) .	PXM(20)	• PXP(20)	. B4(30)	, COMF 1149
COMMUN / WELOC / UWK(30.50.2)  COMMON / WRECOM / F WINTO SO.2)  COMMON / WRECOM / F WINTO SO.2)  LOGICAL CONVG  DIMENSION - WESTRT , WESTRT ,  LOGICAL CONVG  DIMENSION - WESTRT ,  CONTINUE - WESTRT ,  COE2 = ETAMENTO TO SOO  KLAST = KTIP-KROOT+1  IF (ANT-ROOT) GO TO SOO  KRAST = TAMENTO TO SOO  KRAST = TAMENTO TO SOO  KRAST = TAMENTO TO SOO  COE2 = ETAMENTO TO SOO  KRAST = TAMENTO TO SOO  COE2 = ETAMENTO TO SOO  KRAST = MAX-KMAX-LMAX  COE2 = TAMENTO TO SOO  CONTINUE  KRAST = MAX-KMAX-LMAX  CONVERT = JAMANTO TO SOO  CONVERT = LOON T + 1  ITER = ITER + 1  CONVERT = MOUNT + 1  ITER = ITER + 1  CONVERT = MOUNT + 1  ITER = ITER + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT = MOUNT + 1  ITER = TERF + 1  CONVERT				85(30)	R6(30)	• B7(30)	. TEMP1(20)	COMF 1150
COMMUN / VELOC / UWK130-\$0.2)  1 COMMUN / WELOC / UWK130-\$0.2)  COMMUN / WRCOM / FWU130-\$0.2)  CONTINUE (P11)-PK11)  XVCZER(X1.X2.V1.Y2)=X1-Y1+(X2-X1)/(Y2-Y1)  XVCZER(X1.X2.V1.Y2)=X1-Y1+(X2-X1)/(Y2-Y1)  COE2 = CCEZ/(ET/(KB+1)-SA(ETA(KB)+ETA(KB-1))  COE2 = CCEZ/(ET/(KB+1)-ETA(KB))  COE2 = CCEZ/(ET/(KB+1)-ETA(KB))  COE2 = CCEZ/(ET/(KB+1)-ETA(KB))  COE2 = CCEZ/(ET/(KB+1)-ETA(KB))  COE1 = 1COE2  SOO CONTINUE  NCONT = 1COE2  SOO CONTINUE  NCONT = 0.0  CONTINUE  RESH = 11ERATION LOOP **********************************	8200		DIMENSION	XSHKP(30.2)				COMF 1151
1	9200			UMK (30 ,50 ,2			· NAMES OF STREET	COMP IX71
COMMON / MMRCOM / F , SHIFT , MBSTRT , LOGICAL COWNG DIMENSION PRODUCE (Pf1), PF(1))  EVOIVALENCE (Pf1), PF(1))  XYCZER(X1, X2, Y1, Y2) = X1 - Y1 e(X2 - X1) / (Y2 - Y1)  C DATA CLG/0.0/  C MLAST = KTIP - KRODT+1  IF (.ANT. BDDY) GD TO 500  KB = KBMX(1)  COE2 = COE2 / (ETA(KB+1) - ETA(KB) + ETA(KB-1))  COE2 = COE2 / (ETA(KB+1) - ETA(KB))  COE3 = COE2 / (ETA(KB+1) - ETA(KB))  CONYG = .FALSE  CONYG =			•	FMU(30 .50 .2				COMF IX72
LOGICAL CONVG  LOGICAL CONVG  EQUIVALENCE  ROUTVALENCE  ROUTVALE  ROUTVALE  ROUTVALE  ROUNT  ROUNT	0027						. MBPRNT	COMF DY74
DIMENSION P(20,30,90)  EQUIVALENCE (P(1),PF(1))  XVCZER(X1,X2,V1,V2)=X1-V1+(X2-X1)/(V2-V1)  C MLAST = KTIP-KRODT+1  IF (AVAT,BODY) GO TO 500  KB = KBHX(1)  CDE2 = ETAIKB+1)-SPE(ETA(KB)+ETA(KB-1))  CDE2 = CDE2/(ETA(KB+1)-ETA(KB))  CDE2 = CDE2/(ETA(KB+1)-ETA(KB))  CDE3 = CDE2/(ETA(KB+1)-ETA(KB))  CDE4 = CDE2/(ETA(KB+1)-ETA(KB-1))  CDE5 = FRHX(1)  CDE5 = FRHX(1)  CDE6 = FRHX(1)  CDE7 = L-CDE2  SOO CONTINUE  MESH = JMAX**KMAX**LMAX*  C MO 499 L=1.2  DO 499 K=1*KMAX  499 XSJ**KP(K*L) = 0.0  C CASSET** ITERATION LOOP ***CHEBOY  DO 900 III = 1.**MAXITM  KOUNT = 0  IFER = ITER + 1  ITER = ITER + 1  ITER = ITER + 1  ITER = ITER + 1  SOO CONTINUE  C CASSET** INTIALIZE ***CHEBOX**  C CASSET** INTIALIZE ****CHEBOX**  C CASSET*** INTIALIZE ****CHEBOX**  C CASSET*** INTIALIZE ****CHEBOX**  C CASSET*** INTIALIZE *****CHEBOX**  C CASSET*****CHEBOX**  C CASSET****CHEBOX**  C CASSET****CHEBOX**  C CASSET***CHEBOX**  C CASSET**CHEBOX**  C CASSET	0028		LOGICAL CONVG	が 10 mm を 1 mm 1 mm 1 mm 1 mm 1 mm 1 mm 1				SOLVE 23
EQUIVALENCE (P(1), PF(1))  XVCZER(X1, X2, Y1, Y2) = X1 - Y1 (X2 - X1)/(Y2 - Y1)  C	9029		DIMENSION	P(20,30,90)				TBH 37
XVCZER(X1,X2,Y1,Y2)=X1-Y10(X2-X1)/(Y2-Y1)  C	06 00		EQUIVALENCE	(P(1), PF(1)				TBM 38
C KLAST = KTIP-KRODT+1  IF (.ANOT.BDDV) GO TO 500  KB = KBMX(1)  CDE2 = CTAIK(B+1)5*(FTA(KB-1))  CDE2 = COE2/(FTA(KB+1)-ETA(KB-1))  CDE1 = 1CDE2  500 CDMT INUE  MESH = JMAX*KMAX*LMAX  C DO 499 K=1.*KMAX  A99 XSHKP(K.L) = 0.0  C CAST FER = JFRATION LDOP ************************************	0031		XVCZER(XI.X2.VI.	r2)=x1-v1*(x2	-X11/(Y2-Y1	■ Nata 2 2 2 2 3		MURNISP 4
C KLAST = KTIP-KROOT+1  IF (ANTA-BDOY) GO TO 500  KB = KBHK(1)  CDE2 = ETAIKB+1)-SE(ETAIKB)+ETAIKB-1)  CDE2 = COE2/(ETAIKB+1)-ETAIKB)  CDE1 = 1,-CDE2  SOO CONTINUE  MESH = JMAX*KMAX*LMAX  C DO 499 K=1,KMAX  499 XSHKP(K,L) = 0.0  C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		U						ERPPLT22
C KLAST = KTIP-KROOT+1  IF (ANOT-BDDY) GO TO 500  KB = KBMX(1)  CDE2 = COE2/(ETA(KB+1)-ETA(KB))  CDE3 = COE2/(ETA(KB+1)-ETA(KB))  CDE1 = 1CDE2  500 CONTINUE  MESH = JMAX*KMAX*LMAX  C DO 499 K=1*A  DO 499 K=1*KMAX  499 XS*KF(K,L) = 0.0  C C C C C C C C C C C C C C C C C C C			DATA CLG/0.0/				A STATE OF THE PARTY OF THE PAR	ERRPLT24
### ### ##############################		U						EPRPLT26
0036 0036 0037 0037 0038 0039 0039 0039 0040 0041 0042 0042 0044 0042 0044 0044	0033		KLAST = KTIP-KROK	JT+1				SOLVE 24
0036 KB = KBWX(1) 0037 CDE2 = ETA(KB+1)5x(ETA(KB-1)) 0039 CDE2 = COE2/(ETA(KB+1)-ETA(KB)) 0040 SOO CDNTINKE  0041 CDE1 = 1COE2 0042 CDC ASH = JMAX*KMAX*LMAX 0042 CDO 499 L=1.2 0043 PD 499 K=1.KMAX 0044 CCA*TMX = JMAX*KMAX*LMAX 0045 CXLSMF=0.0 CCA*TMX = 0.0 CCA*TMX = 1TER + 1 CCA*TMX = 1TER + 1 CCA*TMX = 1TER + 1 CCA*TMX = 0.0	9EC0		1F ( MOT BODY) G	0 TO 500				CHEN 1262
CDE2 = ETA(KB+1)5s(ETA(KB)+ETA(KB-1)) CDE2 = CDE2/(ETA(KB+1)-ETA(KB)) CDE1 = 1CDE2  SOO CONTINUE  MESH = JMAX*KMAX*LMAX  C	96 90							CHEN 1263
0038	0037			5# (ETA (KB)+	ETACKB-11)			CHEN 1264
COE1 = 1COE2  500 CONTINUE  MESH = JMAX*KMAX*CLMAX  C	0038			(KB+1)-ETA(KB	11			CHEN 1265
500 CONTINUE  MESH = JMAX*KMAX*LMAX  DD 499 L=1.2 DD 499 K=1.KMAX  499 XS!KP(K,L) = 0.0 C C C C C C C C C C C C C C C C C C	00 30							CHEN 1266
C	00 40	20						CHEN 1267
C DO 499 (=1.2 DO 499 K=1.KMAX 499 XSHKP(K,L) = 0.0 C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	0041		MESH = JMAX*KMAX	HLMAX				EPRPLT27
DO 499 L=1.2  DO 499 K=1.KMAX  499 X\$4KP(K,L) = 0.0  C  CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		U						MURFX 3
DO 499 K=1,KMAX 499 XSHKP(K,L) = 0.0 C C C C C C C C C C C C C C C C C C	0042		DO 499 L=1.2					MIREX .
499 XSWRP(K,L) = 0.0  C	0043		DO 499 K=1,KMAX					PURFX 5
C X1.5 WF=0.0  CDAVG = .FALSE.  KQUNT = 0  IF (EXTHSH) CALL FARBOY  DO 900 111 = 1.4AXITH  KQUNT = KQUNT + 1  ITER = ITER + 1  C WSUP=0  BIGRL=0.0  ERROR = 0.0  ERROR = 0.0	900		9 XSHKP(K.L) = 0.0					MURFX 6
C XLSWF=0.0  CONVG = .FALSE.  KOUNT = 0  IF (ETHISH) CALL FARBOY  DO 900 III = 1.MAXITM  KOUNT = KOUNT + 1  ITER = ITER + 1  C CHARGE   WITALIZE ++++++++++++++++++++++++++++++++++++		v						SOLVE 25
C XLSWF=0.0 CONVG = .FALSE. KOUNT = 0 IF (EXTHSH) CALL FARBDY DO 900 III = 1.MAXITH KOUNT = KOUNT + 1 ITER = ITER + 1 C C COSSECT INTIALIZE ************************************		C***	**** ITERATION LOOK		*********	**********	***********	**SOLVE 26
XLSWF=0.0 CONVG = .FALSE. KOUNT = 0 IF (EXTMSH) CALL FARBDY DO 900 III = 1.4MAXITM KOUNT = KOUNT + 1 ITERF = ITERF + 1 C CONSTRUCT + 1 ITERF + 1 C CONSTRUCT + 1 ITERF + 1 C CONSTRUCT + 1 ITERF + 0 C MSUP=0 BIGRL=0.0 ERROR = 0.0 ERROR = 0.0 ERROR = 0.0		U						SOLVE 27
CDNVG = .FALSE.  KCDNYT = 0  IF (EXTMSH) CALL FARBOY  DO 900 III = 1.44XITM  KCDNYT = KCDNYT + 1  ITERF = ITERF + 1  C  C  MSUP=0  BIGRL=0.0  ERROR = 0.0  ERROR = 0.0  ERSON = 0.0	90 45		XLSMF=0.0					YAW 123
MCDUNT = 0  IF (EXTNSH) CALL FARBOY  DO 900 111 = 1.MAXITM  KOUNT = KOUNT + 1  ITERF = 1TERF + 1  C. C. STERF + 1  C.	900		CONVG = .FALSE.					SOLVE 28
IF (EXTMSH) CALL FARBDY DO 900 III = 1,44xITM KOUNT = KOUNT + 1 ITERF = ITERF + 1 ITER = ITER + 1 C CONSIDER INTIALIZE ************************************	0047		KOUNT = 0					SOLVE 29
DO 900 III = 1.4MAXITM KOUNT = KOUNT + 1 ITER = ITER + 1 C C0000000000000000000000000000000000	9400		IF (EXTHSH) CALL	FARBOY				SOLVE 30
KOUNT = KOUNT + 1  ITER = ITER + 1  C  COSSESSE INTIALIZE SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	0000		Me 1 = 111 000 00	AXITM				SOLVE 31
TERF = ITERF + 1  C C*********************************	1500		KOUNT = KOUNT +	A STATE OF THE PARTY OF T				SOLVE 32
TTER = ITER + 1  C. STATE INTIALIZE ************************************	0052			A SAMPLE OF THE PARTY OF THE PA				SOLVE 33
C C. SECRETAL LIZE SECRETARIES C MSUP = 0  BIGRL=0.0  ERROR = 0.0  PSDAV = 0.	6500		ITER = 17ER + 1					SOLVE 34
C MSUP=0 BIGRL=0.0 ERROR = 0.0 RSDAV = 0.								SOLVE 35
u		***	**** INTIALIZE ***	***********	**********	**********	***********	
		·						
	4500		MSUP=0					SOLVE 38
	99 90		BIGRL=0.0					
	9500		ERROR = 0.0					
	7500		PSDAV = 0.					ERRPLT28
FDOAW =	9000							FP001720

2	LEVEL	2.2	(SEPT	92	SOLVE OS/360 FORTRAN H EXTENDED	DATE 77.295/15.24.43
			v			FRRPLT30
	ISN	6500			JF (EXTMSH) GO TO 121	IBM TO
	ISN	1900			ברפרם = נרפ	FATE SASI
	ISN				XLDAD=XLDX(KLAST)	PAREDNAR
	ISN	0063			CLG = -COF*XLOAD/(CAVESSPAN)	CHOP D 26
	ISN					FAIL SAS2
	ISN				IF (ABS(CLG-CLOLD).LE00010) GD TO 91	FA1L \$453
	ISN	9900				FAIL SASA
	ISN	6900			GO TO 92	FAIL SASS
	ISN	00 00		10	KCL6 = KCL6+1	FATL SASS
	ISN	0071			F (KCLG.LT.10) GO TO 92	FATL SAST
			v			FATLSASB
			v		PROBLEM NO. 24	FATLSASO
						FAILSAGO
	ISN	00 73			WRITE(6,406)	FATL SA61
	ISN				CONVG = .TRUE.	FAIL SA62
			U			FA1LSA63
	ISN	00 75		92	COFF = .5*SORT(C2)*XLOAD/3.14159265	FATL SARA
			u			
	Z	900			- "	
			u i			SOLVE
			5	C****	#### SFT (PSTREAM D VALUE) 多种物质性物质物质性物质物质的物质的原物物质的物质的物质的物质的物质的物质的	**SOLVE
	-	-	U			
	ISN	200			JELVAN) GO TO 125	VAW 124
	ISN	6200		115	DO 120 M = 1-LAAX	
	ISN				DO 120 MM = 1.KMAX	
	ISM				DENM = ETA(MM) *ETA(MM) + C2*ZT(M) *ZT(M)	
	ISN	0082			ROST = SORT(X(MM.1)+X(MM.1) + A1+DENM/C2)	
	ISN				P(M.MM.1) = COFF#ZT(M)#(1. + X(MM.1)/PDST)/DENM	SOLVE 62
	ISN			150	CONTINUE	7
	ISN				GO TO 124	
,	ISN			125	DO 130 M=1.LMAX	
^	ISN					YAW 127
	ISN				P(M.MM.1) =-COFF*T2(M.1)-XLSWF*T(M.1)	
	ISN			130	CONT INUE	YAW 129
	ISN	0600		124	CONT INCE	
			U			YAW 131
	ISN	0001		121		SOLVE 65
	ISN	0092				SOLVE 66
	ISN	0003				SILVE 67
	ISN	9600				SOLVE 68
	ISN	2600				SOLVE 69
	ISN	9600				SOLVE 70
	ISN				DO 6 L = 1.LMAX	SOLVE 71
	ISN				11	SOLVE 72
	ISN	6600			MU(L.X.2) = 0	SOLVE 73
	ISN				11	SOLVE 74
	ISN				13	SOLVE 75
	ISN				u	
	ISN	0103				
	SI				11	
	ISN	0105		•	WC2(LoK,2) = 0.	
	25			0	CONTINUE	SOLVE RO

7	LEVEL	2.2	(SEPT	161	SOLVE	05/360 FORTRAN H EXTENDED	DATE 77.295/15.24.43
	162	2010					SOR VE PI
	20				144		
	ISN			2 = 3			SOLVE R3
	ISN			JP1 = 3			SOLVE RA
	ISN			JAI = 1			SOLVE 85
	Z	0112		M2 = 4			CHEN 1268
				ACCOUNT OF			SOLVE R7
	ISN	0113	,	P.WAX =	.,		EPRPLT32
			•				FERDITAS
	ISN	4110	,	DO 20 1	20 J = 2. JMAX1		SOLVERB
					TANTAGE CO TO AC		70 M
	201				LEATHORN BUT IN TO		
	20			100 M	O O O O		CE- 1177
	ISN			IF (YAW) GO	60 10 145		74W 13C
	ISN			CALL DRINGY	AGN.		>
	ISN			3	90		
	ISN			145 DO 150 I	150 M=1.LMAX		
	ISN			00 150	150 MM=K1X.K2X		
	ISN			P(H.MM.	JP1)=-COFF#T2(M.	P(M. MM. JP1)=-COFF#T2(M. JMAX)-XLSMF#T(M. JMAX)	
	ISN			150 CONTINUE	w		TAN 137
	ISN	0127		160 CONTINE			YAW 138
			U				SOLVEIRZ
	ISN			40 CONTINE	W		SOLVEIO6
	ISN	0129		DEZW = (	DE2W = DE2(3)*WI		SOLVEIOT
	ISN			EPSX =	EPSX = EPS/((XI(J) - XI	X1(J-1))**2*CORD(1)*CORD(1))	SOLVETOB
	ISN	0131		1F (EXTMSH)	Ξ		SOLVEION
							SOLVETTO
			t	******* SET	P ON TOP. BOTTOM	SET P ON TOP, BOTTOM, AND RHS BOUNDARIES ***********	***
			v				SOLVETT2
	ISN			1F(YAW)	IFIYAW) GO TO 165		VAW 130
	ISN	0135		17 00 100	DO 100 M = 1.KMAX		SOLVEITS
	ISN			9 8 3	ETA(M)*ETA(M)	DENUP = ETA(M)*ETA(M) + C2*ZT(LMAX)*ZT(LMAX)	SOLVETTA
,,	ISN	0137		RIP = S	COTTX (M.J) *X(M.	= SORTIX (M.J) *X(M.J) + AI*DENUP/C2)	SOLVEITS
0	16.2			DENON =	CTA (W) AFTA (W)	NEWDOW - FTAINSFFA(M) - COATT (1) 471(1)	SON VETTA
	NO.	01.20		DOOMN -	SOUTH AND THE STATE	DOORN - COTTAIN 114KE IN A MADENDAYOU	SOLVEITO SOLVETTY
	100			O N AVA DO	W. D CREEKTY	= CREEXTY! MAYIN! + VIN. I) /DID) MENID	SON WELDE
	200				1 - COSE - 27 (1)	THE STATE OF THE S	50C VE110
100	NO.			TANA TANA	11117-1-00	TI O CHASSINGOIN COENIN	SOLVELLY SOLVETTO
	1				M = O.I MANT		SOLVERS:
	ISA			2	= FTA(KWAX)#FTA	= FTA(KMAX)4FTA(KWAX) + COATT(W)47T(W)	SCH VE122
	Yen			DS10 =	SOUTIXENAX-194X	DOID = COUTY (KWAY 1944 (KWAY 1) + AIRDENGIOCO)	SOR VETST
	ISN			P(W.KMAX. JP)	x 10) = COFF#71(M)#(10	MIN(Is + X(KMAX-1) /RSID) /DENSID	SOLVE124
	ISN			110 CONTINUE			SOLVETES
	ISN				12		YAW 140
	ISN			165 DO 170	170 M=K1X.K2X		
	ISN	0110		75744	P(1, M, JP)=-(()FF*T2(1,J)-XLSMF*T(1,J)	1-XLSMF + T(1, J)	
	ISN			PILMAX	M. SP) = -COFF *T2(1	P(LMAX.M.D)=-COFF #T2(LMAX.J)-XLSMF#T(LMAX.J)	
	ISN			170 CONTINUE			YAW 184
	ISN	0		112 CONT INCE	<b>L</b>		VAW 145
			U				SOLVE126
	ISN			111 KP1 = 2			SOLVEIPT
	ISN	9		KM1 = 2			SOLVEIZA
	ISN	0156		DO 5 K			SOL VET29
	ISN	6		2 6	= 11,42		SOLVEI30

SEA   0159   SEA   DETAIL)   SEA   DETAIL)   SEA   DETAIL)   SEA   DETAIL   DETAIL   DETAIL   DETAIL   DETAIL   DETAIL   DETAIL   DETAIL			
PET   = PET		POR D CL . K . 1711 =	SOLVETST
0100 0723 = 0723   073		0613 = 061(3)	SOLVE132
0150			500 100 100
0165		1	SOLVEISS
		16	SOLVEISA
DEC		"	SOLVEI35
December   Commerce		"	SOLVEI36
C C C C C C C C C C C C C C C C C C C		-	SOLVEIBY
Comment K SREP essessessessessessessessessessessessess		U	SOLVE138
DO 200 K=X3x,K4X   DO 200 K=X3x,K1X   DO 200 K=X3		TATABLE C SUFFD ARRESTANDADADADADADADADA	*************
0166 DO 200 Kek3X,k4X 0166 DO 1 = DAZ(K, 1) 0167 DO 2 = DAZ(K, 1) 0169 DA 2 DAZ(K, 1) 0170 DO 2 DAZ(K, 1) 0180 DAZ(K, 1) 0191 DAZ(K, 1) 0191 DAZ(K, 1) 0192 DAZ(K, 1) 0193 DAZ(K, 1) 0194 DAZ(K, 1) 0195 DAZ(K, 1) 0195 DAZ(K, 1) 0196 DAZ(K, 1) 0197 DO 2 DAZ(K, 1) 0196 DAZ(K, 1) 0197 DAZ(Z, 1) 0198 DAZ(Z, 1) 0199 DAZ(Z, 1)			SO VETA
0150 0150 0150 0150 0150 0150 0150 0150		1	OF THE STATE OF TH
0106 D1 = D.KII(K.J) 0106 D2 = D.KZI(K.J) 0107 D6 = D.KZI(K.J) 0107 D7 = D.KZI(K.J) 0108 D.KZI(K.J) 0109 D.KZI(K.J) 0119 D.KZI(K.J) 0119 D.KZI(K.J) 0119 D.KZI(K.J) 0119 D.KZI(K.J) 0110 D.KZI(K.J) 0110 D.KZI(K.J) 0110 D.KZI(K.J) 0111 D.KZI(K.J) 0111 D.KZI(K.J) 0112 D.KZI(K.J) 0113 D.KZI(K.J) 0114 D.KZI(K.J) 0115 D.KZI(K.J) 0116 D.KZI(K.J) 0117 D.KZI(K.J) 0118 D.KZI(K.J) 0119 D.KZI			-
0166	-		SOLVE142
0166 03 = D.M.T(K.1) 017	40		SOLVE143
0170 PG = D.K.G.(K.J.) 0171 PG = D.K.G.(K.J.) 0172 PG = D.K.G.(K.J.) 0173 PG = D.K.G.(K.J.) 0174 PG = D.K.G.(K.J.) 0175 PG = D.K.G.(K.J.) 0175 PG = D.K.G.(K.J.) 0176 PG = D.K.G.(K.J.) 0177 PG = D.K.G.(K.J.) 0178 PG = D.K.G.(K.J.) 0179 PG = C.K.G.(K.J.) 0180 PG = C.K.G.(K.J.) 0181 PG = C.K.G.(K.J.) 0182 PG = C.K.G.(K.J.) 0183 PG = C.K.G.(K.J.) 0184 PG = C.K.G.(K.J.) 0185 PG = C.K.G.(K.J.) 0186 PG = C.K.G.(K.J.) 0187 PG = C.K.G.(K.J.) 0188 PG = C.K.G.(K.J.) 0189 PG = C.G.(K.J.) 0190 PG = C.G.(K.J.) 0191 PG = C.G.(K.J.) 0191 PG = C.G.(K.J.) 0192 PG = C.G.(K.J.) 0193 PG = C.G.(K.J.) 0194 PG = C.G.(K.J.) 0195 PG = C.G.(K.J.) 0196 PG = C.G.(K.J.) 0197 PG = C.G.(K.J.) 0198 PG = C.G.(K.J.) 0199 PG = C			SOLVE144
0177 DE DE DAKS(K.J.) 0178 DE DAKS(K.J.) 0179 DE DAKS(K.J.) 0179 DE DAKS(K.J.) 0179 DE DAKS(K.J.) 0179 DE DAKS(K.J.) 0170 DE DAKS(K.J.) 0170 DE DAKS(K.J.) 0170 DE DAKS(K.J.) 0170 CC2 = CC2(K.) 0171 CC2 = CC2(K.) 0170 CC2 = CC2(K.) 0170 CC2 = CC2(K.) 0170 CC2 = CC2(K.) 0180 CC3 = CC2(K.) 0180 DE L = L1, L2 0180 DE L			SOLVEIAS
0172		-	SOLVE146
0172		-	SOLVE147
0173 D6 = DAKS(K.J.) 0174 D7 = DAKS(K.J.) 0175 D11 = DAK11(K.J.) 0176 CC1 = CC2(K.J.) 0177 CC2 = CC2(K.J.) 0178 CC2 = CC2(K.J.) 0179 CC3 = CC3(K.J.) 0180 CC3 = CC3(K.J.) 0181 CC52 = CC3(K.J.) 0182 CC52 = CC3(K.J.) 0183 D0 8 L = L1 L2 0184 DC52 = CC3(K.J.) 0185 DC52 = CC3(K.J.) 0186 CC3 = CC3(K.J.) 0186 CC4 = CC3(K.J.) 0187 CC5 = CC3(K.J.) 0188 CC54 = CC3(K.J.) 0188 CC54 = CC3(K.J.) 0189 CC54 = CC3(K.J.) 0189 CC54 = CC3(K.J.) 0189 CC54 = CC3(K.J.) 0189 CC55 = CC3(K.J.) 0189 CC56 = CC3(K.J.) 0189 CC66 = CC3(K.J.) 0189 CC66 = CC3(K.J.) 0180 CC66 = CC3(K.J.) 0180 CC66 = CC66   CC6			SC VE148
0175 D10 = DAK10(K.J) 0176 CC1 = CK1(K) 0177 CC2 = CK2(K) 0178 CC2 = CK2(K) 0179 CC3 = CK2(K) 0180 CC3 = CK2(K) 0191 CC5 = CK2(K) 0192 CC4 = CK4(K) 0193 CC5 = CK2(K) 0194 CC5 = CK2(K) 0195 CC5 = CK2(K) 0196 L = L1.L2 0197 CC5 = CK2(K) 0198 CG5 L = L1.L2 0198 CG7 L = L1.L2 0199 CC7 L = L1.L2 0199 VC(L.K.J1) = CC1 - CC2(PXP(L) + PXP(L)) 0199 VC(L.K.J1) = C0 0190 VC2(L.K.J1) = C1 0190 VC2(L.K.J1)		3 8	ST VETA
0175 D10 = DAK10(K, J) 0177 CC2 = CKZ(K) 0178 CC3 = CKZ(K) 0179 CC3 = CKZ(K) 0180 CC5 = CKZ(K) 0181 CC5 = CKZ(K, J) 0182 CC5 = CKZ(K, J) 0183 D0 B L = L1, LZ 0184 PXM(L) = (P(L,K, JP) - PDLD(L,K, JP))*X!R(J) 0185 PXM(L) = (P(L,K, JP) - PDLD(L,K, JP))*X!R(J) 0186 CC5 = CKZ(K, JP) 0187 PXP(L) = (P(L,K, JP) - PDLD(L,K, JP))*X!R(J) 0188 PXM(L) = (P(L,K, JP) - PDLD(L,K, JP))*X!R(J) 0189 PXP(L) = (P(L,K, JP) - PDLD(L,K, JP))*X!R(J) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + PXM(L)) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + YIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + YIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, J-1)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, JP)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, JP)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, JP)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, JP)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, JP)*PXM(L) 0180 VC2(L,K, JP) = CC1 - CC2*(PXP(L) + XIVJ(K, JP)*PXM(L) 0180 VC2(L,K,		28	SCE VETA
0175 CC1 = CK1(K) 0176 CC2 = CK2(K) 0177 CC2 = CK2(K) 0180 CC2 = CK2(K) 0181 CC5 = CK2(K) 0182 CC5 = CK2(K) 0183 CC5 = CK2(K, J) 0184 CC5 = CK2(K, J) 0185 B CDNTIME CC2 = CK2(K, J) 0185 B CDNTIME CC3 = CK2(K, J) 0186 C C444 CK1		•	500 VESE 1
0179		1	SOUND SOUNDS
0179		1 1	20174700
0179		1	SCAVEISS
0109		ıı	SOLVEISE
CC5 = CK5 (K) 0180 CC5 = CK5 (K) 0181 CC5 = CK5 (K) 0183 DO 8 L = L1.6.2 CC CCT = CK5 (K) 0185 BXM(L) = (P(L.K.JP) - POLD(L.K.JP)) *XIL(J) PYP(L) = (P(L.K.JP)) - P(L.K.JP)) *XIR(J) CC CCT = CMPUTE 1-M*2 ***********************************			SOLVEISS
0181		11	SOLVEIS6
0182		11	SOLVEIST
0183 DO 8 L = L1, L2 0184 PXH(L) = (P(L, K, JP) - PDLD(L, K, 172)) eXIL(J) 0185 B CONTINUE  C CONTINUE  C DO 2 L = L1, L2 0187 VC(L, K, 11) = CC1 - CC2*(PXP(L) + PXH(L)) 0190 VC2(L, K, 11) = C0 0190 VC2(L, K, 11) = C1 0191 C CONTINUE  C C CONTINUE  C CONTINU			SOLVEISA
0186 PRI(L) = (P(L,K,JP) - POLD(L,K,JP))*XIL(J) 0186 C  C**********************************			SOLVE159
0185 PXP(L) = (P(L,K,JP1) - P(L,K,JP))*XIR(J) 0186 CANTINUE  C CASSESSE COMPUTE 1-M482 ************************************		= (P(L.K.JP) -	SOLVE160
CERTINUE  CETTION  CE		= (P(L.K.JP1) =	SOLVEI61
Cestrate COMPUTE 1-Mar2 statement test test test test test test test t		CONTINUE	SOLVEI62
C C C C C C C C C C C C C C C C C C C		,	SOL VETAR
C DO 2 L = L1.4L2  WC(L.4K.11) = CC1 - CC2*(PXP(L) + PXW(L))  WC2(L.4K.11) = 0.  WC2(L.4K.11) = 0.  WC2(L.4K.11) = 0.  WC2(L.4K.11) = 0.  C CONTINUE  C CONTINUE  C CONTINUE  C DO 12 L = L1.4L2  O192  D0 0 12 L = L1.4L2  O193  13 W(L.4K.11) = 1  O194  13 W(L.4K.11) = 1  O195  12 CONTINUE  C DO 12 L = L1.4L2  O195  13 W(L.4K.11) = 1  O196  14 (A.6T.4T) = 1  O197  C O 450 L=1.2  O199  C O 450 L=1.2  O199  C O 450 L=1.2  O199  C O 450 L=1.2	, , ,		COLLANDOS CONTRACTOR
0187 C DO 2 L = L1, L2 0188 WC(L, K, 11) = CC1 - CC2*(PXP(L) + PXM(L)) 0189 WC2(L, K, 11) = 0. 0190 VC2(L, K, 11) = 0. 0190 Z CONTINUE C DO 12 L = L1, L2 0192 DO 12 L = L1, L2 0193 IF (VC(L, K, 11)) 13, 13, 13, 12 0194 NSUP = NSUP + 1 0195 L2 CONTINUE C DO 12 L = L1, L2 0195 L2 CONTINUE C DO 12 L = L1, L2 0195 L2 CONTINUE C DO 12 L = L1, L2 0196 L2 L = L1, L2 0197 L2 CONTINUE C DO 12 L = L1, L2 0197 L2 L3, L2 0199 L2 L3 CONTINUE C DO 12 L = L1, L2 0199 L2 L3 CONTINUE C DO 12 L3, L3, L3, L3, L2 0199 L2 L3,			**************************************
0187 DO 2 L = L1,L2 0188 WC(L,K,11) = CC1 - CC2*(PXP(L) + PXH(L)) 0189 WC(L,K,11) = 0. 0190 Z CONTINUE C CATTINUE C CATTINUE C DO 12 L = L1,L2 0192 DO 12 L = L1,L2 0193 I3 MU(L,K,11) = 1 0195 NSUP + 1 0196 I2 CONTINUE C TF (J,GT,JTE(K),GR,J,dT,JE(K)) GO TO 451 LS = LWINGL-1 0199 LS = LWINGL-1 0199 LS = LWINGL-1 0199 LS = LWINGL-1			SOLVEIRS
0186 WC(L_K,11) = CC1 - CC2*(PXP(L) + PXM(L)) 0189 WC2(L_K,11) = 0. 0190 VC2(L_K,11) = XIYJ(K_J)*PXP(L) + XIYJ(K_J-1)*PXM(L) 0191 Z CONTINUE  C C**********************************		2 L = L1.L2	SOLVE166
0199 WC2(L,K,11) = 0. 0190 VC2(L,K,11) = XIYJ(K,J)*PXP(L) + XIYJ(K,J-1)*PXM(L) 0191 2 CONTINUE C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		= CC1 -	SOLVE167
0190 VC2(L,K,11) = XIYJ(K,J)*PXP(L) + XIYJ(K,J-1)*PXM(L) 0191 2 CONTINUE C COSTSTOR SUPERSONIC FLOW ************************************			SOLVE168
SOLVEI  C. CONTINUE  C. CONTINU		= XIYJ(K.J)*PXP(L) +	SOLVE169
SOLVEI  C. C		CONT INUE	SOLVEIPO
C			SOLVEITI
SCLVEI  0192  0193  17 (VC(L, K, 11)) 13,13,12  0194  13 MU(L, K, 11)		***** TEST FOR	******
0192			
0193		DO 12 L	SOLVE174
0194 13 WU(L-K-11) = 1 0195 NSUP = NSUP + 1 0196 12 CONTINUE C IF (J.GT-JTE(K).OR.J-LT.ALE(K)) GD TO 451 HURFX 0199 LS = LWINGL-1 0199 NORFX HURFX		.K. 111)	SOR VETT
0195		MU(L.K.11) = 1	SOLVE176
0196 12 CDNTINUE SOLVE 0197 IF (J.GT.JTE(K).OR.J.LT.J.E(K)) GO TO 451 WIRFX WIRFX 0199 ILS = LWINGL-1 WIRFX WIRFX WIRFX WIRFX WIRFX		MSNP = NSNP	Sri VE177
C IF (J.GT-JTE(K).OR.J.LT-JLE(K)) GO TO 451 WIRFX WIRFX 0199 LS = LWINGL-1 WIRFX WIRFX WIRFX WIRFX WIRFX WIRFX		CONTINEE	SCR VETTR
0197 IF (J.GT.JTE(K).OR.J.LT.J.E(K)) GD TO 451 WIREY 0199 LS = LWINGL-1 WIREY WIREY 0200 DO 450 L=1.2 WIREY WIREY		!	MIDEN 7
0199 LS = LWINGL-1 0200 FG 450 L=1+2 WIRFX		IF	N X AGE
0200 PO 450 L=1.2			0 2395
X 1200			

Conserve TERM 3 ***********************************	Z	ISN 0243	D(L) = D(L) + D6#(P(L,K,JM]) - P(L,K,JP)) + D7#(P(L,K,JP]) 3 - P(L,K,JP)) 182 CONTINAE C	SOL V 6226 SOL V 6226 SOL V 6228
DO 19 L = L1.L2  If (K. Eb. 1) FILL) = BILL) - D11  In continue  D0 19 L = L1.L2  D1 19 L = L1.L2  C1 L L L L L L L L L L L L L L L L L L L			:	SOLVE230
F (K = F0, 1) F(L) = B(L) - D1]   H(L) = R(L) - D1]   H(L) = R(L) - D0   H(L) = R(L) + H(L) +		9520	27°17 = 11°10	SALVE232
HILL = HILL > DIO   DIO   DIO   DIO   DILL   DIO   DILL   DIO   DILL   DIO   DILL   DIO   DILL   DIO   DIO   DILL   DIO   DIO   DILL   DIO   DIO		0245		SOLVERS
Detail		0247	H(L) = H(L) - D10	SOLVE234
1 - Pit. (* Pit.) 10 00 191 t = t.i.t.2 00 191 t = t.i.t.2 00 191 t = t.i.t.2 00 192 t = t.i.t.2 00 192 t = t.i.t.2 00 192 t = t.i.t.2 00 193 t = t.i.t.2 00 234 t = t.i.t.2 00 235 t = t.i.t.2 00 235 t = t.i.t.2 00 237 t = t.i.t.2 00 237 t = t.i.t.2 00 237 t = t.i.t.2 00 238 t = t.i.t.2 00 248 t = t.i.t.2 00 258 t = t.i.t.2			DR*(P(L,KM1,JM1)	SOLVEZAS
191 CDNT INNE  192 CDNT INNE  193 CDNT INNE  194 CDNT INNE  195 CDNT INNE  195 CDNT INNE  196 CDNT INNE  197 CDNT INNE  198 CDNT INNE  198 CDNT INNE  199 CD		-	1 - 04.46.491)	SOLVE236
00 191 L = 11142  00 192 L = 1042  00 23 L = 1042  00 24 L = 1042  00		6420		SOLVEZET
2 - P(L.K.JP)   POSPICION   PO		0520		SILVEZA
191 CDNTNUE  192 CDNTNUE  193 CDNTNUE  194 CDNTNUE  195 CDNTNUE  196 CDNTNUE  197 CDNTNUE  198 CDNTNUE  198 CDNTNUE  199 C		1631	•	SINCE SE
DO 192 L = L1.4.2  DO 192 L = D(L) + D108(P(L,KM1,JP) - P(L,K,JP)) + D118(P(L,KP1,JP))  192 CONTINAE  C  DO 23 L = L1.4.2  A(L) = 'D(L) + D(L)  C(L) = D(L) D(L)  C(L				SOLVEZAN
0(L) = D(L) + D10*(P(L,KM1, P) - P(L,K,PD)) + D11*(P(L,KP1, JP))  3 - P(L,K,PD))  192 CONTINUE  C			1 201 00	Ser vesas
3 - PfL,K.,P)  192 CONTINE  C  Commer TEPM A sequence sequence sequence sequence sequence to the commerce of t		0254	+ 1104.94.10 - 101.101.1014.4	
192 CONTINUE  C 00 23 L = L1.6.2  ALL 3 = -0.1(L)  G(L) = B(L)0.2(L)  G(L) = D(L) + D(L)(L) PP(L-1,K.JP) - DL2(L) PP(L,K.JP)  2 + DL3(L) PP(L+1,K.JP)  B(L) = -C.5.18PPC(L)  G(L) = -C.5.18PPC(L)  1 - P(LD(L,K.112))  2 3 GOTTINE  5 GOTTINE  C GONTINE  C CONTINE  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  C GONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINUE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINUE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINUE  DO 24 L = L1.4.2  VC2(L,K.11) = XIYJ(K.J) PPXP(L) + XIYJ(K.J-1) PPXP(L)  C CONTINUE  DO 24 L = L1.4.2  VC2(L,K.N) PPXP(L) PPXP(L) PPXP(L) PPXP(L) PPXP(L)  C CONTINUE  DO 24 L = L1.4.2  VC2(L,K.N) PPXP(L) PPXP(L) PPXP(L) PPXP(L) PPXP(L)  C CONTINUE  DO 24 L = L1.4.2  VC2(L,K.N) PPXP(L) PPXP(L				
C C C C C C C C C C C C C C C C C C C		0255	192 CONTINE	SOLVE245
Conserve TEPM A suscessessessessessessessessessessessesses				SOLVE246
C DO 23 L = L1.42  A(L) = 0(L) + DL2(L)  C(L) = DL3(L)  C(L) = DL3(L)  C(L) = DL3(L)  D(L) = DC518PP(L)  E4(L) = -C5518PP(L)  E5(L) = -C5518PP(L)  E5(L) = -C5518PP(L)  E5(L) = 0.  E5 CONTINUE  C5 CONTINUE  C6 C			Cossage TEPM a secessoresedesecessoresedesecessoresecessorese	MSOLVE247
DO 23 L = L1.42  A(L) = E(L) - DL2(L)  C(L) = DL3(L)  D(L) = DL3(L)  2 + DL3(L)  D(L) = -CC518/PC(L)  BA(L) = -CC518/PC(L)  BA(L) = -CC518/PC(L)  CASTEL = CC518/PC(L)  BA(L) = -CC518/PC(L)  CASTEL = CC518/PC(L)  CASTEL =			The state of the s	SOLVEZAB
A(L) = 'D(1(L))  G(L) = D(3(L))  G(L) = D(3(L))  Z + D(3(L)) + D(1(L)) + D(1(L)) + D(L)(L) + D(L	2	9520		SOLVE249
### Bill = Bill = DL2(L)  Cit = DL3(L) + DL1(L) #PILL-1, K, JP) - DL2(L) #PILL,K, JP)  2 + DL3(L) # C(L) + DL1(L) #PILL-1, K, JP)  BA(L) = -CC51#PXP(L)  EA(L) = -CC51#PXP(L)  1 - PILD(L,K, 112)  23 CDVTING  F (1SPAN) GO TO 28  DO 27 L = L1, L2  27 E6(L) = 0,  GO TO 38  28 CDVTING  C  C ********************************		0257	A(L) = (0,1(L)	SOLVE250
C(L) = DL3(L)  D(L) = DL3(L)  2 + DL3(L) #P(L-1,K,JP) - DL2(L) *P(L,K,JP)  2 + DL3(L) #P(L+1,K,JP)  BA(L) = -CC51#PP(L)  1 - PQLD(L,K,112)  2 GDAT1ME  DO 27 L = L1,L2  2 GONTINUE  C COMMINUE  C C C C C C C C C C C C C C C C C C C		9520		SOLVF251
D(L) = D(L) + DL1(L)*PP(L-1*K*JP) - DL2(L)*PP(L*K*JP)  2 + DL3(L)*PP(L+1*K*JP)  B4(L) = -CC51*PP(L)  G6(L) = -CC51*PP(L)  1 - PCLD(L*K)112)  23 CONTINE  15 (15PAN) G0 T0 28  D0 27 L = L1*L2  26 CONTINE  C G0 T0 38  28 CONTINE  C C**********************************		0520	C(L) = DL3(L)	SOLVE252
2 + DL3(L)#P(L+1,K,JP) B4(L) = -CC51ePXP(L) G6(L) = -CC524(P(L,KP1,JP1) + P(L,K,JP1) - POLD(L,KP1,T12) 1 - PYRD(L,K+172)) 23 CONTINC  F (1SPAN) G0 TO 28  D0 27 L = L1,L2  27 B6(L) = 0.  G0 TO 38  28 CONTINUE  C  C++++++++++++++++++++++++++++++++		0520	0(f) = 0(f) + 0(1(f)+0(f-1,K,JP) - 0(2(f)+P(f,K,JP)	SOLVE253
DA(L) = -CC51#PXP(L)  DA(L) = -CC52#P(L, KP1, JP1) + P(L, K, JP1) - POLD(L, KP1, II2)  1 - POLD(L, K, II2))  23 CONTINCE  16 (19Pan) GO TO 28  DO 27 L = L1, L2  26 CONTINCE  C  C. C			2 + DL3(L) +P (L+1, K, JP)	SOL VE254
### 156(L) = -CC52*(P(L.KP1.JP1) + P(L.K.JP1) - POLD(L.KP1.F12)  23	z	0261	B4(L) = -CC51ePXP(L)	SOLVE255
1 - POLDÍL, K. 112)  23 CONTINE  16 (1524) 60 TO 28  DO 27 L = L1.L2  27 166(L) = 0.  GO TO 38  28 CONTINUE  C  C. C	Z	0262	186(L) = -C(52*(P(L, KP1, JP1) + P(L, K, JP1) - POLD(L, KP1, 112)	SOLVE256
23 CONTINKE 1F (1SPAN) GO TO 28  DO 27 L = L1,L2 27 IBG(L) = 0. GO TO 38  C. C			1 - POLD(L. ok . 112.)	SOLVE257
F (15PAN) GO TO 28   DO 27 L = L1.L2   27 E		0263	8	SOLVE258
DO 27 L = L1.L2 27 B6(L) = 0. 60 TO 38 28 CONTINUE C C. C		0264		SOLVE259
27 IBG(L) = 0. GO TO 38 28 CONTINUE C C. C		9920	DO 27 L ≈ L1,L2	SOLVEZAO
GO TO 38  28 CONTINUE  C C		0267	198	SOLVEZEI
28 CONTINUE  C C.		9770		SOL VE262
C. C		6920		SOLVEZAS
Consessed ADD EXTRA SPANWISE TERMS TO TRIDIAGONAL SYSTEM seascastestestes  C C C C C C C C C C C C C C C C C C C			· ·	SOLVEZEA
C C C C C C C C C C C C C C C C C C C			Cassassa ADD EXTRA SPANNISE TERMS TO TRIDIAGONAL SYSTEM sessabaseses	#\$OLVE265
C C C C C C C C C C C C C C C C C C C				SOLVEZ66
C****** EXTRA SPANWISE TERMS IN TERM 1 ***********************************			0	SOLVEPAT
C DO 24 L = L1:L2  VC2(L,K,1]) = XIYJ(K,J)*PXP(L) + XIYJ(K,J-1)*PXM(L)  24 CONTINUE  DO 242 L = L1:L2  VC2(L,K,1]) = VC2(L,K,1])  1 *-25*(P(L,K)1) - P(L,K)1)  2 - POLD(L,K)1])  242 CONTINUE			Cottoto EXTRA SPANNISE TERMS IN TERM I sessessessessessessessessesses	**SOLVEZSB
DO 24 L = L1,L2  VC2(L,K,11) = XIYJ(K,J)*PXP(L) + XIYJ(K,J-1)*PXM(L)  24 CONTINUE  DO 242 L = L1,L2  VC2(L,K,11) = VC2(L,K,11)  1 *254(P(L,KP1,JP1) - P(L,KM1,JP1) + POLD(L,KP1,112)  2 - POLD(L,KM1,112) + 2.*(P(L,KP1,JP) - POLD(L,KM1,111)))  242 CONTINUE			在在在中间,我也有什么有法则是我也有了,也就是我的有什么,不是我们,我们一直被看了,只是我们的一个人的,我们也会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会	SOLVE269
VC2(L,K,11) = XIYJ(K,J)*PXP(L) + XIYJ(K,J-1)*PXM(L) 24 CONTINUE DO 242 L = L1,L2 VC2(L,K,11) = VC2(L,K,11) 1 *.254(P(L,KP1,JP1) - P(L,KM1,JP1) + POLD(L,KP1,112) 2 - POLD(L,KM1,112) + 2.*(P(L,KP1,JP) - POLD(L,KM1,111))) 242 CONTINUE		0270	00 24 L = 11.12	SOLVE270
24 CONTINUE 00 242 L = L1,L2 VC2(L,K,11) = VC2(L,K,11) 1 *.25*(P(L,KP1,JP1) - P(L,KM1,JP1) + POLD(L,KP1,112) 2 - POLD(L,KM1,112) + 2.*(P(L,KP1,JP) - POLD(L,KM1,111))) 242 CONTINUE		0271	$WC2(L_*K_*11) = XIYJ(K_*J) + PYP(L) + XIYJ(K_*J_*1) + PYP(L)$	SOLVE27!
DO 242 L = L1.L2 VC2(L.K.11) = VC2(L.K.11) 1 *.25*(P(L.KP1.JP1) - P(L.KM1.JP1) + POLD(L.KP1.112) 2 - POLD(L.KM1.112) + 2.*(P(L.KP1.JP) - POLD(L.KM1.111))) 242 CONTINUE		0272		SOLVEPTE
VC2(L,K,11) = VC2(L,K,11) 1 *.25*(P(L,KP1,JP1) - P(L,KM1,JP1) + POLD(L,KP1,112) 2 - POLD(L,KM1,112) + 2.*(P(L,KP1,JP) - POLD(L,KM1,111))) 242 CONTINUE		0273		SALVE273
1 *.25*(P(L,KP1,JP1) - P(L,KM1,JP1) + POLD(L,KP1,112) 2 - POLD(L,KM1,112) + 2.*(P(L,KP1,JP) - POLD(L,KM1,111))) 242 CONTINUE		0274		SOLVE274
2 - POLD(L.KM1.112) + 2.*(P(L.KP1.JP) - POLD(L.KM1.111))) 242 CONTINUE				SOLVE275
242 CONTINUE			+ 2.* (P(L,KP1,JP)	SOLVE276
	1			

ISN		TEMP1(L) = D1#(P(L,KM1,JM1) - P(L,KP1,JM1) - P(L,KM1,JP1) 1 + P(L,KP1,JP1))	SOLVE270 SOLVE280
ISN		25 CONTINUE	SOLVEZRI
ISN	0279	= 1.1.1.2	SOLVEZAZ
ISN	0580	TEMPI(L) = TEMPI(L) + D2+P(L,K,JMI) + D3+P(L,K,JPI)	SOLVEZAS
		2 - (D2 + D3)*P(L.K.JP)	SOLVEZRA
ISN	0281	251 CONTINKE	SOLVERAS
ISN	0282	00 26 L = L1.L2	SOLVEZAG
ISN	0283		SOLVEZAT
ISN		D(L) = D(L) + CG3+VC2(L,K,11)+TEMP1(L)	SILVEZAB
ISN		26 CDN T INUE	SOLVEZAG
			SOLVEZOO
		Cassass EXTRA SPANNISE TERMS IN TERM 2 seessassassassassassassassassassassassas	*SOLVE201
		Contraction of the contraction o	SOLVF202
ISN		_	SOLVEPOR
ISN		HS(L) = -CC51*PXM(L)	SUL VE294
ISN	0288	B7(L) = -0x52(KM1, J)*(P(L,K, JP1) + P(L,KM1, JP1) - P0L0(L,K,112)	SOLVEZOS
		-	SOL V E296
ISN		30 CONT INCE	SOLVE297
ISN		NO 31 L = L1.L2	SOLVEZOR
SN		( .EO. 1) B(L) = B(L) - 84 (L)	SOLVEZOO
ISN		B(L) = B(L) - CC4*VC2(L,K,11)*D2 - B5(L)*D6	SOLVERO
ISN			SOLVEBOI
SS		31 CONTINE	SOLVERO
ISN		00 32 L = 11.42	SOLVE303
SI	1620	D(L) = D(L) + BS(L)*D4*(P(L*M1.)M1) -P(L,KP1.)M1)+POLD(L,KM1.)111	) SOLVE304
		-	SOLVEROS
ISN		32 CONTINUE	SOLVERGE
SN		1,12	SOLVEROT
ISN	0300		SOLVEROB
		V	SOLVESON
ISN		321 CONTINUE	SULVESTO
ISN		22 L = L1,L2	SOLVESTI
ISN	0303		SOLVESTE
		(	SULVESTS
ISN	0304	322 CONTINUE	SOLVESTA
			SOLVERIS
		C###### EXTRA SPANISE TERMS IN TERM 3 ###################################	*SOLVE316
		U	SOLVESTY
ISN		b0 33 L = L1.L2	SOLVE318
ISN		IF (K .EO. 1) B(L) = B(L) - B6(L)*011	SOLVERIG
ISN			SOLVE320
ISN	0300	D(L) = D(L) + B7(L)*D8+(P(L,KM1,JM1) + P(L,K,JM1) - P(L,KM1,JP1)	SOL VE321
			SOLVE322
ISN			SOLVESS
ISN	0311	-1 .12	SOLVE324
ISN	0315		SOLVERS
		2 - p(L, Kp1, JM1) - p(L, K, JM1))	SOLVE326
ISN	0313	331 CONTINUE	SOLVE327
ISN	0314	00 332 L = L1,L2	SOLVE328
ISN	0315	D(L) = D(L) + B7(L)*D10*(P(L*K*1.JP)	SOLVE329
		3 - P(1 -K - P) + 86(1 )*011*(P(1 - KP) - JP) - P(1 - K - JP)	· · · · · · · · · · · · · · · · · · ·
		A LANGUAGE CO. CO. C.	SOLVE330

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DATE 77-295/15-24-43
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SOLVE384
                                                                                    essess no extra spanyise tepms in term a sessessessessessessessessessolve333
                                                                                                                                                  50LVE335
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOLVE369
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOL VE368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOL VE372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOLVESTS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOLVE374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOLVE375
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DTEMP=-.254ETAC(K) *XIC(J)*(P(L,KP1,JP1)-P(L,KP1,JM1)-P(L,KM1,JP1)
                                                                                                                                                                                                                                    DISSIPATION FOR SPANNISE TERMS SECRETARE RESERVED DE SECRETARE DE SECR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PTEMP=DTEMP+XIY(K,J)*((DH1(J)*POLD(L,K,113)-DH2(J)*P(L,K,JH1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -(DE1(J)*P(L,K,JK1)-DE2(J)*P(L,K,JP)+DE3(J)*P(L,K,JP1)))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cenesses wing BOUNDARY CONDITION sessessessessessessessessesses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (P(L,K,JP)-P(L,K,JM1)-P(L,KM1,JP)+POLD(L,KM1,112)))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (P(L. KP1. JP) -P(L. KP1. JM1)-P(L. K. JP)+POLD(L. K. 112)))
  DS/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         +ETAR(K)+(P(L,KP1,JP)-P(L+K,JP)))
                                                                                                                                                                                                                                                                                                                                                                                                                                         PY=.54(ETAL (K)+(P(L,K,JP)-POLD(L,KH1,111))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                +DH3(1)*P(L,K,JP))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B(L) =8(L)+COED*(BTEMP-2,*ETAR(K)*X1L(J))
D(L)=D(L)+COED*(DTEMP+ETAR(K)*X1L(J)*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B(L)=B(L)+C0ED*(BTEMP+2.*ETAL(K)*X1L(J))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D(L)=D(L)+COED+(DTEMP+ETAL(K)+XIL(J)+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BILVINGL) = BILVINGL) + DL3(LVINGL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IF ( K .LE. KBMX(J) ) GO TO 240
                                                                                                                                                                                                                                                                                                                                                                                  Frvc(L,K,11).GE.0.0) GO TO 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BTEMP=XIV(K . J) * (DH2 ( J) +DE2 ( J) )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDED=2.4COPD (K) 4VC(L.4K.11)*PY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     +XIY(K, J) *PXI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1F(J .LT. JE(K)) GO TO 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IF (K .GT. KTM1) GO TO 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PY IS '.LE. 0
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                                                                                                                                                                                                                                               Cessesse VORTEX SHEET exemples assesses assesses as a second control of the contr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PETA==54((P(LS,KP1,JP)-P(LS,K,JP))*ETAR(K)+(P(LS,K,JP)-
                                                                                                                      B(LWINGJ) = B(LWINGJ) + DLI(LWINGJ) + (P(LWINGL,K,JP))

D(LWINGJ) = D(LWINGJ) + DLI(LWINGJ) + (P(LWINGL,K,JP))
                                            DILWINGL & DILWINGL) + DL3(LWINGL) + (P(LWINGU,K,JP)) | P(LWINGL) + (P(LWINGL,K,JP)) - WBCL(K,JWBC)
OS/360 FORTRAN H EXTENDED
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                                                                                                                                                                                                                                                                                                                                                  DILLINGU) = DILLINGU) - DLIILL INGU) +PJUMP(K.J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UNK (K. JABC.L) = -VC(LS.K.11)*COPD(K)*COPD(K)
                                                                                                                                                                       I PILMINGUAK . JP)) - WECUTK . JABC)
                                                                                                                                                                                                                                                                                                                                                                                                 JF (ITEMF.LE.MBSTRT) GO TO 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JF (K .LT. KBMX(J)) GD TO 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240 JF (BTYPE .LT. 2) GO TO 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POLD (LS.KM1, 1711)) *ETAL(K))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       V(K, JWBC,L)=0.0
FWU(K,JWBC,L)=MJ(LS,K,11)
                                                                                                                                                                                                                                                                                                                                                                         1F(.MOT.1BUMP) GO TO 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEKK-E0-1) GO TO 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                    JABC = J-RE(K)+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             00 241 L = LA.LB
                                                                                                 ALLETMEUT = 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LA = LBO(K.3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LB = LBU(K.J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C(LA-1) = 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A(L9+1) = 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LA = LBO(K+J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LB = LBU(K.J)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DO 250 L=1.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LS=1.WINGL-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C(L) = 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D(L) = 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A(L) = 0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GD TO 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GO TO 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GO TO 210
                                                                                                                                                                                                  GO TO 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          250 COULTINUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONTINUE
                                                                                                                                                                                                                            230 CONT INCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15=151
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           460
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LEWEL 2.2 (SEPT 76)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
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                                                    ISN 0354
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11

ISN 0401 ISN 0402 ISN 0403		
	B(L) = 0.	CHEN 1271
	D(L) = 0.	CHEN 1272
		CHEN 1273
	1	CHEN1274
		346.000
	:	CHENIOTA
15N 0404	VVM = .258(FY(LL,J+1)-FY(LL,J-1)+ETAR(K)*(P(L,KD1,JD1)	CHEN 1277
	1 -P(L.*k.JP1)-POLD(L.*KP1.112)+POLD(L.*K.112)))	CHEN 1278
		CHEN 1279
	C ** ELLIPTIC POINTS	CHEN 1280
	C. S. College of the	CHEN 1281
15N 0405	JF (MJ(Lekell) -Eq.1) GD TD 610	CHEN 1282
	$R(L) = B(L) - VC(L_*K_*11) + DE2W_* + 5 + 3 + VVW + XIC(J_*) + ETAP(K) + WI/CORD(K)$	CHEN 1283
15" A406	$D(L) = D(L) + VC(L \cdot K \cdot 11) + (DE1 \cdot J + D(L \cdot K \cdot J + M) - DE2 \cdot J + D(L \cdot K \cdot J + M)$	CHEN 1284
	•	CHEN 1285
15N 0409	D(L) = D(L)+.25*A3*(FY(LL,J-1)+2.*FY(LL,J)+FY(LL,J+1)	CHEN 1286
	1 +ETAP(K)*(P(L,KP1,JM1)-P(L,K,JM1)+2,*P(L,KP1,JP)-2,*P(L,K,JP)	
	2 -P[L-KP1-JP1)-P(L-K-JP1)) ***********************************	CHEN 1288
15N 04 10		CHEN 1289
		CHEN 1200
	C ** MYPE SPOLIC POINTS	CHEN 1291
		CHEN 1292
ISN 04 12	VVM1 = .25*(FY(LL,J)-FY(LL,J-2)+ETAP(K)*(P(L,KP1,JP)-P(L,K,JP)	CHEN 1293
	-	CHEN 1294
	B(L)	CHEN 1295
15N 0414	D(L) = D(L)+VC(L,K,12)*(DH1J*PQLD(L,K,113)-DH2J*P(L,K,JM1)	CHEN 1206
	1 - Cortistant (L. K. J.P.)	CHEN 1297
ISN 0415	Ş	
	I +ETAR(K) + (P(L,KP1,JM2)-P(L,K,JM2)+2,4P(L,KP1,JM1)-2,4P(L,K,JM	1
		CHENISON
15N 04 16		CHEN 1301
	:	CHEN 1302
		CHEN 1303
	1.0	CHEN 1304
		CHEN 1305
15N 0418	D(L) = D(L)25*A4*XIC(J)*(FV(L,J-1)+2.*FV(LL,J)+FV(LL,J+1)	
		33
	2 P(L,K,JP1)-2. #P(L,K,JP))) #VM/CORD(K)	CHEN 1308
		CHEN 1300
	C # VERW 3	CHEN 1310
25.00		CHENISTI
AT AL	1 +-25*XIYJ(K-J-1)*(1-+85(L))*XIC(J)*ETAR(K)	CHEN 1312
ISN 0420	0(1) = 00(1) + 10(1) +	
15N 0421	D(L) = D(L)-XIC(J)+.25+(1-+85(L))+XIVJ(K+J-1)+(FV(LL-J-1)+FV(LL	.J)CHEN 1316
	1 +ETAR(K) *(P(L,KP1,JM1)-P(L,K,JM1)+P(L,KP1,JP)-P(L,K,JP)))	CHENISIT
	:	CHEN1318
ARM DERES		CHENTSTO
	i de la companya de l	CHEN 1320
15N 0422	WXBY = .54XIC(J)*((P(L,KP1,JP1)-POLD(L,KP1,112))*C(E1	CHEN 1321
	1 +(P(L, x, JP1) -D(L)(L, x, II2))#C0E2)	CHEN 1322

	VXBY IS THE EXTRAPOLATED BOUNDARY PHI, X	CHEN 1323 CHEN 132A
		CHEN1325
		CHENISTY
	ETAR(K)*ETAC(K)) /CORD(K)	CHEN 1328
212	= D(L)+(CORD1*(1.+86(L))*ETAR(K)*(P(L,KP1,JP)-P(L,K,JP))	CHEN 1329
	FY([(_,J))*ETAC(K)/CORD(K)	CHENISSO
		CHEN 1332
213		CHENISSS
	していましているとうこととのできないからないのとのあること	CHEN 1334
600 CONTINUE  IF (J.LT. LE(K)  IF (J.LT. LE(K)  IF (J.LT. LE(K)  GO TO 220  263 CONTINUE  C DO 261 L = LA.  C(L) = 0.0  R(L) = -1.  A(L) = 0.0  C(L) = 0.0  R(L) = -1.  A(L) = 0.0  C(L) =	= D(L)+DL1(L)+P(L-1,K,JP)-DL2(L)*P(L,K,JP)+DL3(L)*P(L+1,K,JP)CHEN1335	JP) CHEN 1335
1		CUEN 1330
1F (J.GT.JTE(K GO TO 220  263 CONTINUE C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		CHEN 1338
GO TO 220  263 CONTINUE  C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		CHEN1339
263 CONTINUE  C C		CHEN 1340
C. DO 261 L = LA. C(L) = 0.0 B(L) = -1.0 A(L) = 0.0 C(L) = 0.0 C(L	大きなない はなので 一番のでは、はないのには、これには、ないので	SOLVE459
C(L) = 0.0 C(L) = 0.0 C(L) = 0.0 B(L) = -1. A(L) = 0.0 C(L) = 0.0	日本の大田を日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日	SOLVEAGO
DO 261 L = LA. C(L) = 0.0 B(L) = -1. A(L) = 0.0 C(1) = 0.0 C(2) D(L) = 0.0 B(L) = B(L) + 1 C(L) = C(L) - 0 C(L) = D(L) + 1 C(L		SOLVE461
C(L) = 0.0  B(L) = -1.  A(L) = 0.  C. 261 D(L) = 0.0  C. 211 CONTINUE  L = LB + 1  L = LB + 1  C(L) = C(L) +  C(L) = C(L) +  C(L) = C(L) -  D(L) = D(L) +  1 + (DL3(L) -  C. C. C. C(L) -  D(L) = A(L) -  B(L) = B(L) +  C(L) = A(L) -  B(L) = B(L) +  C(L) = C(L) -  D(L) = D(L) +  C(L) = 0.  C(L) = 0.		SOLVE463
R(L) = -1.  A(L) = 0.  Z61 D(L) = 0.0  C  C11 CONTINUE  L = LB + 1  Z13 CONTINUE  A(L) = 0.  B(L) = B(L) +  C(L) = C(L) -  D(L) = D(L) +  1 + (DL3(L) - D  C  C12 CONTINUE  L = LA - 1  A(L) = A(L) +  C(L) = A(L) -  B(L) = B(L) +  C(L) = A(L) -  C(L) = D(L) +  C(		SOL VEA64
261 D(L) = 0.0 C. C. C		CHEN 1341
261 D(L) = 0.00 C C10CONTINUE L = LB + 1 213 CONTINUE A(L) = 0.0 B(L) = B(L) + C(L) = C(L) - D(L) = D(L) + 1 + (DL3(L) - D C C4444444 BOTTOM C C12 CONTINUE L = LA - 1 A(L) = A(L) - B(L) = B(L) + C(L) = A(L) - B(L) = B(L) + C(L) = D(L) + 1 + C(L) = 0. D(L) = D(L) + 1 + C(L) +		SOLVEA65
C. C		SOLVEA66
C 211 CONTINUE  L = LB + 1  213 CONTINUE  A(L) = 0.  B(L) = B(L) +  C(L) = C(L) -  D(L) = D(L) +  1 + (DL3(L) - D  C **********************************		SOLVEANT
211 CONTINUE  L = LB + 1  213 CONTINUE  A(L) = 0.  B(L) = B(L) +  C(L) = C(L) -  D(L) = D(L) +  1 + (DL3(L) - D  Consesses BOTTOM  C  212 CONTINUE  L = LA - 1  A(L) = A(L) -  B(L) = B(L) +  C(L) = 0.  D(L) = D(L) +  1 + P(L*K*JP) +  1 + P(L*K*J		SOLVEAGE
L = LB + 1  213 CONTINE  A(L) = 0.  B(L) = B(L) +  C(L) = C(L) -  D(L) = D(L) +  1 + (DL3(L) - D  C **********************************		SOLVEATO
213 CONTINE  A(L) = 0.  B(L) = B(L) +  C(L) = C(L) -  D(L) = D(L) +  1 + (DL3(L) - D  C **********************************		SOLVEATI
A(L) = 0. B(L) = B(L) + C(L) = C(L) - D(L) = D(L) + 1 + (DL3(L) - D C++++++++++++++++++++++++++++++++++++		SOLVEATO
B(L) = B(L) +  C(L) = C(L) -  D(L) = D(L) +  1 + (DL3(L) - D  C+++++++++++++++++++++++++++++++++++		SOLVEARD
C(L) = C(L) - D(L) = D(L) + 1 + (DL3(L) - D C C++++++++++++++++++++++++++++++++++		SOLVEAPI
P(L) = D(L) +   P(L) = D(L) +   P(L)   P(L		SOLVEABE
1 + (0L3(L) - D C************************************	1	SOLVEABS
Continue 212 CONTINUE L = LA - 1 A(L) = A(L) - B(L) = B(L) + C(L) = 0. D(L) = D(L) + 1 *P(L,K,JP) +	JP) - RBCU(K.J)	SOLVEARA
C 212 CONTINE L = LA - 1 A(L) = A(L) - B(L) = B(L) + C(L) = 0. D(L) = D(L) + 1 *P(L,K,P) +		SULVEANS
212 CONTINUE L = LA - 1 A(L) = A(L) - B(L) = B(L) + C(L) = 0. D(L) = D(L) + 1 *P(L,K,JP) +		Sm VFAR7
L = LA - 1 A(L) = A(L) - B(L) = B(L) + C(L) = 0. D(L) = D(L) + 1 *P(L,K,P) +		SOR VEARA
A(L) = A(L) + B(L) = B(L) + C(L) = 0. D(L) = D(L) + 1 *P(L,K,JP) +		SOLVEARO
B(L) = B(L) + C(L) = 0. D(L) = D(L) + 1 *P(L,K,JP) +		SOLVE490
C(L) = 0. D(L) = D(L) + 1. 1 *P(L,K,P) + 1.		SOLVEADI
D(L,) = D(L) + 1 *P(L,K,D) +		SOLVE492
1 *P(L,K,P) +	40 (L-1.K.JP) - (DL2(L) - DRBCL)	SOLVEA93
	P) - RACL(K.J)	SOLVEAGA
DASK 210 CONTINEE		SOLVEASK
		2000

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15

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FATL SABB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FAIL SA72
                                                                                                                                                                EDDD1.757
                       PRPLTAS
                                  PPPLTAG
                                             PAPETAT
                                                       PREPLTAR
                                                                     PRPLTAG
                                                                                 EPRPLT50
                                                                                            PPPLISI
                                                                                                       EDAPL752
                                                                                                                   ERPPLT53
                                                                                                                              PRPLTSA
                                                                                                                                         PPPLTSS
                                                                                                                                                     SPPPLT56
                                                                                                                                                                              ERRPLTSA
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                                                                                                                                                                                                     EPPPLTED
                                                                                                                                                                                                                EPPPLT61
                                                                                                                                                                                                                           MURFX 22
                                                                                                                                                                                                                                       MUPFX 23
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                                                                                                                                                                                                                                                                                                                                                          FATL 5467
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                                                                                                                                                                                                                                                                                                                                                                                                                    EPRPLT73
                                                                                                                                                                                                                                                                                                                                                                                                                                ERRPLT74
                                                                                                                                                                                                                                                                                                                                                                                                                                            SOLVESA7
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOLVESOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOLVESAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOLVESOO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOLVESOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FATLSAGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PARE DN49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FAIL SA70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHOPD 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOLVESOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FATLSATI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FATLSATA
Coccess SAVE FINE MESH ERROR AND RESIDUAL FOR ONLINE PLOT sessesses
                                                                                                                                                                                                                                                                        MRITE(6.401) ITER, ERROR, ERRAV, JE, KE, LE, BIGRL, RSDAV, JRD, KRD, LRD.
                                                                                                                                                                                                                           IF (TBUMP.AND.ITERF.GT.MRSTRT) CALL MURMAN(ITERF.XSHKP)
                                                                                                                              IF (ERRL. GT. 0.) CEF = CFF-AINT (ERRL+1.)
                                                                                                                                                                              IF (RSDL.GT.0.) CRF = CRF-AINT (RSDL+1.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F (ABS(CLG)-LE..05) GO TO 902
F (ABS(CLG-CLOLD)-LE..00010) GO TO 901
                                                                                                                                                                                                                                                                                                           WRITE(6,402) (RESIDJ(K),K=1,KTM1)
                                                                                                                                                                                                                                                                                     NSIIP, CLG, PJMAX, KPJ
                                                                                                                                                                                                                                                  IF (KOUNT .NE. INCP) GO TO 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IF (ITEPF .LT. MAXIT) GO TO 900
                                                                                                                                                                                        ERRF (ITERF) = CEF+ALOG10 (ERR1)
                                                                                                                                                                                                   RSOF (ITERF) = CRF+ALMG10 (RSD1)
                                                                                                                                                                                                                                                                                                                                                                                                                              IF (FRROR GT -RTEST) GD TO 899
                                                                                                                                                                                                                                                                                                                                    IF (ERROR -LE - 100 - ) GO TO 898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLG = -CDE+XLOAD/(CAV*SSPAN)
                       RSDAV = RSDAV/FLOAT(MESH)
                                  ERRAY = ERRAY/FLOAT (MESH)
                                                                                IF (ITERF.6T.1) GO TO 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IF ( -NOT - EXTMSH) RETURN
                                                                                                        ERRL = ALOGIO(ERROF)
                                                                                                                                                     = ALOG 10 (RSDOF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       XLOAD=XLDXfKLAST)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONVG = . TRUE.
                                                                                                                                                                                                                                                                                                                                                         PROBLEM NO. 25
                                                                                                                                                                                                                                                                                                                                                                                                                                            CONVG = . TRUE.
                                                                                                                                                                                                                                                                                                                                                                                             CONVG = . TRUE.
                                                                                             ERROF = ERROR
                                                                                                                                          PSDOF = BIGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KCLG = KCLG+1
                                                                                                                                                                                                                                                                                                WRITE (6,404)
                                                                                                                                                                                                                                                                                                                                                                                 FRITE(6,405)
                                                         ERRI = ERROR
                                                                      PSOI = BIGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            פרטרט = כרפ
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15	LEWEL 2.2 (SEPT 76)	SOLVE	092/300	05/360 FORTRAN H EXTENDED	EXTENDED	DATE	DATE 77.205/15.24.43	
		F (KCLG.LT.10) GD TO 902	1 TO 902				FAILSATS	
v							FA1LSA76	
U		PROPLEM NO. 24					FAIL SA77	
v							FAILSATE	
		WRITE(6,406)					FATL SATO	
		CONVG = .TRUE.					FAILSABO	
U							FATLSARI	
·	305	COFF = .5450PT(C2)	*XLDAD/3-141	59269			FAIL SAR2	
•	-	FORMAT (3X , 6HF INE	.2x.14.2x.2(	110.4.2x1.3	401 FORMAT(3X,6HFINE .2X,14,2X,2(E10,4,2X),3(13,2X),2(E10,4,2X),		EPRPLT76	
		3(13,2x).16	3(13.2x), 16.2x, E10.4.2x, E10.4, 2x, 13)	E10.4.2X.1	3)		ERPPLT77	
•	901	FORMATC/////10X. 6	SHPROBLEM NO.	25-THV15C	405 FORMAT(/////10X, 694PROBLEM NO. 25-INVISCID SOLUTION DIVERGING.		FAIL SAR3	
		INVISCID SOLUTION HALTS.///)	IN_TS.///)				FATL SABA	
•	90	406 FORMATIC////IOX. 6SHPPORLEM NO. 24-CL EFFECTIVELY CONSTANT.	SHOPORLEM NO.	24-CL EFF	ECTIVELY CONSTANT.	INVIS	INVISFATL SARS	
		ICID SOLUTION HALTS	(///:				FAILSARG	
		RETURN					SOLVE607	
		96					SOLVEGOR	

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GASTMT NOXPEF ALC NOANSF TEPM FLAG(!) DUMP 20680, SUBPROGRAM NAME = SOLVE ADPTIONS IN EFFECT MANE (MAIN) OPTIMIZE(2) LINECOUNT (55) SIZE (MAX) AUTODBL (NONE) 597. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

•
NOM.
OPT(2)
OPTIONS
RECKESTED

15N 0002	SUBROUTINE STORE	IE STORE						6	STOPE	2	
v								S.	STORE	n	
ISN 0003	COMMON /	/ INTER /	X1(90)	. ETA(30)	. 77	27 (20)	. XIN( 90)	•	INTER	2	
	I Comment		X1F(90)	. XIC(90)	. x	XIR(90)	. ETAL (30)	•	INTER	3	
	~		ETAC(30)	. ETAR(30)	. 00	COEU	· COEL		INTER	•	
	3		ZCW	. ZW.	. ZRM	7	· ZCM		INTER	2	
	•		PD(M(30)	. EDUM(30)	WX .	XMIN	. XMAX	•	INTER	9	
	2		WAX	. ZMAX	. 78	IN	NIMZ .		INTER	1	
	9		22.00	· ZRVU				-	MTER		
15N 0004	COMMON /	/ INDEX /	JMAX	. KMAX	5.	LMAX	. KTM1		LINDEX	2	
			KTJP	. KTIP1	. 38	JULE	. JEE (30)		INDEX	<b>m</b>	
	2		SWTE	. JTE(30)	3.	LWINGL	. LWINGU		INDEX	•	
			JMAX 1	. KMAX1	3.	LMAX1	. KROOT	•	COMP IX	-	
	•		191					-	LNDEX	£	
1SN 0005	COMMON /	/ BODY1 /	XNOSE	. XTAIL	. K	NB IN(2)	. XBIN(2.35).	151. 8	RODA	~	
			NBODS	. JBUP(2)		JBDN (2)	. JNOSE		HODA		
	8		JTAIL	. ALPHAB	S.	NBPTS(90)	. R(90)		AGO		
	3		KBMX (90)	· Can	· LMX	*	. AFK(15)		Ago	<b>1</b> 0	
			BFK(15)	. CFK(15)	. AF	AFL( 15)	. BFL(15)		BODA	•	
					-						

		· CINA	· COLLAD	10111	10111	0	
		CFL(15) .	ABL(15) .	BBL(15) ,	CBL(15) ,	800v 7	
	•	ACL(2) .	BCL(2) .	CCL(2)	BTYPE .	BODY B	
	*	* (06)(Max	XPBL(90) .	DZRBU(90) .	DZRBL(90) .	CHEN!	
		NRRU .	NRBL .	YRR .	ZABU .	800V 10	
	•	ZRBL .	KBMXX(30) .	JNOSEX .	STAILX .	BODY 11	
	•	RB IN (2,35).	* XJSONX	XTAILX .	YOR	FIXCY4 1	
1SN 0006	COMMON / BODY2 /	FX(30,90) .	FY(30,90) .	FZ (30.90)		COMF 1X23	
		KBCD (30,90)	•	LBU( 20.90).	LBU(20.90). LBD(20.90).		
	2	NBPTSX(30).	LB00(30,90)			COMP IX25	
	3	LBUX (20,30)	•	LBDX (20 +30)	•	COMF 1X26	
		FYX(20,30), CPS(20,90)	CPS(20,90)			COMF 1X27	
15M 0007	COMMON / BODV3 /	KBMAX .	KBMAXX .	LLBL .	LLBU .	BUDY 18	
	-	LLRLX .	LL BUX	RBCU (30 . 90)	•	COMF TX29	
	8	KBS .	PBCL (30,90)			COMF 1X30	
		RBCUX (20,30)	•	RBC_X(20,30)	•	COMF IX31	
		DREICU .	DRBCL .	DRRCUX .	DRBCLX .	COMF TX32	
	60	SALPH(90) .	SALPHX (30)			COMF TX33	
1SN 0008	COMMON / BODYBC /	. OUBI	TBLD .	IBSIDE .	ETABU(10) .	COMF IX34	
	-	ETABL(10) .	ZB00(20) .	NRBS .	XRBS(100)	COMF 1X35	
1SN 0009	COMMON / OLD /	. (06)OIX	ETAD(30) .	ZT0(20)	PJUMPO(30).	2 000	
	The second secon	LBID(20,90)		LBD0(20,90)	•	3	
	2	PJUMPT (30),	KRMXD(90)	. OW	KOMO .	OLO 4	
	£	LMO .	STATLO .	MOSEO .	LWUO .	000	
	•	FINE				000	
15N 0010	LOGICAL	FINE				COME IXAO	
SN 0011	COMMON / JAMP /	AZU .	AZE .	. 028	. BZL .	JUMP 2	
		czo .	. E	COFF	•	COMF IX14	
	2	PJUMP (30,90	•	PCDEF (30,90)	•	COMF IX15	
	3	KP INDX (30 .90		PJUMPX (20,30)	10	COMF EX 26	

	COMMON / FLAGS /	forsk .	ISAVE	. 16	IPLOT		MSHINT	•	FLAGS	2
•		SOLV	WBCPRT	. 86	BBCPRT		BODY	•	FLAGS	3
		FCB	TSPAN		TEINE		1CRIDE		TAPTX	1
		FYTHEM	DEMECH		MADO		***		TADAT	•
•		TRIEND	IVIE		15101		1 11034		TAIDT	
• •			-					•		
0		· MICOUR	MAISTA		AKEA		TOTO!			
	LOGICAL	. XSIGI	ISANE	•	IPLOT	•	SHINT	•	COMP IX	
-		SULV .	MACPRT	. 8	BBCPRT	•	BODY	•	COMP TX	2
2		FCP .	ISPAN		IF INR	•	ICRUDA	•	COMP TX	9
3		EXTMSH .	REMESH	. 1	IMAPR	•	YAW	•	COMP IX	1
•		1BUMP	IVISC		ITWIST		FOILT	•	COMF IX	
0		18001N	AXISYM	. AR	AREA	•	TBLOUT		COMF TX	6
	COMMON / YANDPT /	KIX .	KZX	. K3	K3X		KAX	•	COMF IXB	
-		K5X	K6X	· KT	K7X		KBX		COMF TXP	
N		KP1X	KMIX						COMF TXE	6
·									STOPE	0
	00 1 3 = 1.90								STORE !	•
	(6) 1x = (6)01X								STORE 1	
	KBMXO(3) = KBMX(3)	SHE STORY SERVICES							STOPE !	2
									STOPE .	
•									STORE .	
									STOPE 1	
									STORE .	
,									STURE I	
									STORE I	
	DO 4 K = 1020								STURE	
	LBUO(K.J) = LBU(K.J)	6.								6
•	-	6.							STORE 20	0
	DO 5 J = 1. JMAX								STORE 2	1
	NO S K = 1.KMAX								STORE 2	~
	JNDX = JTE(K)								STORE 23	3
	PJUMPO(K)=PJUMP(K.JNDX)	. SNDX )							FIXC VIOT	1
	PF(.NOT.YAN) GO TO 5	0.5							FIXCYIOR	•
	IF(K.GT.KTM1) PJUMPO(K)=0.0	MPO(K)=0.0							FIXC VIOS	0
	IF(K.LE.KTMI) PJU	PJUMPO (K)=PJUMP (K4X, JNDX)	(K4X.JNDX						FIXCY110	
9	CONTINUE								FIXCVIE	1
	SHO = JMAX								STORE 25	2
	KMD = KMAX								STOPE 26	9
	LMO = LMAX								STORE 27	
	STAILD = STAIL								STORE 28	
	JNOSED = JNOSE								STORE 29	6
									0.00	
	RETURN								STORE 31	

15N 0012

LEVEL 2.2

ISN 0013

ISN 0014

\*OPTIONS IN EFFECT\*STURCE ERCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 798. SUBPROGRAM NAME = STURE \*OPTIONS IN EFFECT\*NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) 43. PROGRAM SIZE = DIAGNOSTICS GENERATED SOURCE STATEMENTS = \*STATISTICS\* NO \*STATISTICS\*

156K BYTES OF CORE NOT USED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

15N 00 15 15N 00 16 15N 00 17 15N 00 19 15N 00 22 15N 00 23 15N 00 24 15N 00 26 15N 00 32 15N 00 32

RECOLESTED OPTIONS OPT(2) - NOMAP

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-	E BECDIC NOLIST NOCECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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AAIN) OPTIMIZE(2) LINECOUNT(SS) SIZE(MAX) AUTOBBL(NONE)	
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	SOURCE EBCDIC MOLIST NOMECK ORJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1)	NODECK ORJ	ECT NOWAP NO	FORMAT GUST	IT NOXREF AL	C NOANSE VERM FLAGIT	
15N 0002	SUBROUTINE FARBOY					FARRIN 2	
						FARBOY 3	
		INTERPOLA	TES PHI ON	XTERIOR-INT	ERIOR MESH .	***FARRIN 4	
	Casasses BOUNDARIES sestassessasiss	**********	********	************	**********	***FARBIN 5	
						FARROY 6	
15N 0003	COMMON / LARGN /	PF 120 .30 .90	(0	. DJK1(30.90	60	. COMPIXES	
		DJK2(30,90)	•	. DJK3(30,90)	•	· COMF TX46	
	2	DJK4(30,90)	•	. DJK5(30.90)	60	. COMF 1X47	
		DJK6(30,90)	•	. DJK7(30,90)	60	. COMF 1X48	
		DJK8 (30,90)	-	. 7 JK9(30,90)	10	. COMF DX49	
	ıc	DJK10(30,90	(0)	. HK11(30,90)	106	COMF IXSO	
15N 0004	COMMON / LARGX /	PC (20.20.30)	(0)	. JK10X (20.30	.301	. COMF IX52	
	THE STANFAST STANFAST	DJK11X(20,30)	30)	. DJK1X(20,30)	30)	COMF 1X53	
15N 0005	COMMON / INDEX /	JMAX	. KMAX	. LMAX		. INDEX 2	
	Contract of the Contract of th	KTIP	. KTIP!	. JULE	. AE(30)	. INDEX 3	
	2	SWTE	. JTE(30)	. LWING.	. LWINGU	. INDEX 4	
	P	JMAX 1	. KMAXI	. LMAX1	. KROOT	. COMF IX 1	
		14				INDEX 6	
15N 0006	COMMON / INDEXX /	MAXX	. KMAXX	. LMAXX	· KTM1X	. INDEX 2	
		KT IPX	. KTIPIX	. JLEX(20)	. JTEX (20)	. INDEXX 3	
	2	LWNGUX	. LWNGLX	. JMAXXI	. KMAXX1	. THIDE XX 4	
	B	UNAXXI	. KROOTX	. JPIX		INDE XX S	
15N 0007	COMMON / INTER /	(06) LX	. ETA(30)	. 77 (20)	. XIN(90)	. INTER 2	
		X1L(90)	. XIC(90)	. XIR(90)	. ETAL (30)	. INTER 3	
	2	ETAC(30)	. ETAR(30)	. CDEU	· COEL	· THTER .	
	n	ZCWI	י מת	. ZRVL	· ZCVL	. INTER 5	
	•	PDLM(30)	. EDUM(30)	NIWX .	. XMAX	. INTER 6	
	v	VMAX	· ZMAX	. VHIN	· ZwIn	. INTER 7	
	•	21.00	· BW			INTER 8	
15N 0008	COMMON / EXTER /	XIEX (30)	. FTAX(20)	. ZTX(20)	. XINX(30)	· EXTER 2	
		X1CX (30)	XICX(30)	. XIRX (30)	. ETALX (30)	EXTER 3	
	~	ETACK(20)	. ETARX(20)	WINX .	. XMAXX	. EXTER 4	
	n	WAXX	. ZMAXX	. VMINX	. ZMINX	. EXTER 5	
	•	ZWX	. ZRM.X	. ZCMLX	· AVUX	. EXTER 6	
	•	ZRWUX	· ZCWUX			EXTER 7	
15N 0009	COMMON / NE SHCO /	JEX(30,90)	. KEX (30)	. LEX(20)	. CKEX (30.9	DKEX (30,90), MESHOD 2	
	-	DVEX (30)	. DZEX(20)	. KINL 30)	. JINK (20.3	JINK (20,30), MESHOD 3	
	~	LIN(20)	. DY IN( 30)	. DZ IN(20)	. KINB(20)	· MESHOD 4	
	3	DV INB( 20)	. LINB(20)	. DZ INB(20)	. JINB(20)	· MESHOD &	
	•	JIME#1120.	30	. KEXB(30)	. LEXB(20)	. COMF IX 2	
		DVCXB(30)	. DZFXB(20)	. JCDN	. KUP	MESHOD 7	
15N 0010	COMMON / FLAGS /	TOTSK	. ISAVE	· 1PLOT	. MSHINT	· FLAGS 2	
	*	SOLV	. WBCPRT	. HBCPRT	· BODY	· FLAGS 3	
	~	FCB	. ISPAN	. IF IND	. ICRUDA	. INPTX 1	
	m	EXTMSH	. REMESH	. IMAPR	. YAW	. INPTX 2	
	A RESIDENCE OF THE COMPANY OF THE COMPANY	TRUMP	· IVISC	. ITWIST	. PFOILT	. INPTX 3	
	•	MODEL	. AKTSYM	. AREA	· IRLOUT	THPTX 4	
15N 0011	LOGICAL	IDISK	. ISAVE	. IPLOT	. MSHINT	. COMP IX 4	

SAME   STATE						- Landa		
STATE   STAT		N		FCR	. ISPAN	IF INR	ICRUDA .	. COMF IX 6
FIGURE   FOULT   FOULT		n		EXTWSH	REMESH .	IMAPR	YAW	. COMF IX 7
S				IRUMP	· IVISC .	ITWIST	FOILT.	. COMF IX 8
0012 CDMHON / BODVI / WRITE		v		THOUTH	. AXISYM	AREA	, TRLOUT	COMP IX 9
1	ISN 0012	COMMON		XNOSE	. XTAIL .	NB IN(2)	. XBIN(2,35)	. BODY 2
TAIL   ALPHAN   MAPPISSOO   FR (150)   FR (150)		-		NACIOS	, JAUP(2)	JBDN(2)	NOSE	. BODY 3
### #### #############################		2		STAIL .	. ALPHAR	NAPTS(90)	, R(90)	. BODY .
### GTM_[15] - GTM_[15		9		KBMX (90)	. LMN	LMX	, AFK(15)	. BODY 5
CCL(2)   CCL(2)   GEL(2)   GEL(2)		•		BFK(15)	. CFK(15) .	AFL(15)	DEL(15)	. BODY 6
STATE   STAT		5		CFL(15)	, ABL(15) .	BBL(15)	(SF(15)	. BODY 7
Wether   W		۰		ACL(2)	, BCL(2)	CCF(5)	BTYPE .	. BODY 8
0013 COMMUN / BODV? / FKTAK 300 ) - 1005EX . J7ALLX . GRANK 300 ) - 1005EX . J7ALLX . GRANK 300 ) - 1005EX . J7ALLX . GRANK 300 ) - 1005EX . J7ALLX . J7ALLX . J7ALLX . V0B . J7ALTX . J7ALTX . J7ALTX . V0B . J7ALTX . J7A				XPBU(90)	. XPRL (90) .	DZRRU(90)	DZRBL (90)	. CHEN! !
A		æ		NRHI	. NRBL .	YRB	Dean .	. BODY 10
A   RRINIC 2.55   XNDSEX   XTATIX   YOBB		•		ZRBL	, KBMXX(30)	JNOSEX	JIAILX	. BODY 11
0013 CCMMUN / BONYZ / FX130,90) , FY130,90) , FZ130,90) , FZ130,90) , FZ130,90) , FZ130,90) , GROMIN / BONYZ / FX120,90) , LBU(20,90) , GROMIN / BONYZ / KRMXX / LBUX / RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , A RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , A RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , A RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , RBCX(130,90) , A RBCX(130,90) , RBCX(130,90)		*		RB IN (2,35)	. XNOSEX	XTAILX	408	FIXCY4 !
1 KRD0730,90) 2 NRFTSX(30) LRDN(20,90) 3 S LEWK(20,30) 4 ADMINA   BNDV3 / KRBMX   LLBL 1 LRLX   LLBLX   LRDN(20,90) 3 S RRECUK(20,90)   LRDN   LLBLX	ISN 0013	COMMON		FX(30.90)	FY(30,90)	FZ(30,90)		. COMF IX23
2		•		KBOD (30,90)		LBU( 20,90)		. COMF 1X24
COMMON   DODA'S   KENAX   LEBL   LEBU		N		NBPTSX(30)		A PART AND A STATE OF THE PART		COMF 1X25
0014		6		LBUX (20,30)	The state of the state of	LBDX (20,30)	The state of the s	. COMF IX26
0014 CDMHON / BODV3 / KBMAX , KRWAXX , LLBL		•		FYX(20.30)				COMF IX27
1 LLRLX , LLBUX , RBCU(30.90) , RBS	ISN 0014	COMMON		KBMAX	KBMAXX .	LEBL	LE BU	. 80bv 18
### ##################################		•		LLRX	· LLBUX	RBCU (30 . 90		2
### ##################################		. ~		KRS	. RRCI (30.90)	San Paris		COME PX30
0015 SALPH(90) BRECL . PRBCUX . ORRICLY . SALPH(90) SALPHX(30) . SALPH		m		RBCUX ( 20 , 30	-	RBCLX(20.30		. COMF 1X31
SALPH(90) . SALPHX(30)  0015  COMMON / BODYBC / IBUD . IBLD . IBSIDE . EFABU(10) .  1				DRBCU	DRBCL .	PRBCUX	DRRCLX	. COMF IX32
0015 CCDMMON / BDDYBC / IBUD		\$		SALPH(90)	. SALPHX (30)			COMP TX33
0016 TOWNON / YAWOPT / KIX	SN 0015	COMMON		1800	. TBLD .	restoe ,	ETABULION	. COMF 1X34
0016				ETABL(10)	, ZROD(20) .	NRBS	XRBS(100)	COMF 1X35
C MPIX	SN 0016	NOWWON		KIX	, K2X .	K3X	K4X	. COMF TX87
C				KSX	. кех	K7X	K8X	. COMP TXPR
C DO 150 J = 1.JMAX  0018  C CATTORN AND DOWNSTREAM ************************************		cu		KPIX	. KMIX			COMF TX89
0017 DO 150 J = 1.JMAX  0018 IF (J .6T. 1 .AND. J .LT. JMAX) GO TO 3  C. T. T. L.		U						FARBOYTE
C C C C C C C C C C C C C C C C C C C			11					FARBOY17
Contract UPSTREAM AND DOWNSTREAM ************************************		3	-	. J .LT. JMJ				FARBOYTR
C:::::::::::::::::::::::::::::::::::::								FARBOYIO
0020 DO 14 K=K1X,K2X 0021 12 = JEX1K,J) 0022 J1 = J2 - 1 0023 DX = DXEX(K,J) 0024 K2 = KEX(K) 0024 K2 = KEX(K) 0026 DX = DXEX(K) 0027 DX 13 L = 1,LMAX 0028 L2 = LEX(L) 0029 DZ = DZEX(L) 0030 DZ = DZEX(L) 0030 I3 Ff(L,K,J) = FFINT(J1,J2,K1,K2,L1,L2,DX,DY,DZ) 0031 I3 FF(L,K,J) = FFINT(J1,J2,K1,K2,L1,L2,DX,DY,DZ) 0033 JF (L,MOT, BODY) GO TO 150		******	TRE AN AND D	DWNSTREAM #1	***********	**********	**********	**FARBDY20
0020								FARBOY21
0021 1 J2 = JEX(K, J) 0022 J1 = J2 - 1 0023 DEX (K, J) 0024 K2 = KEX(K) 0025 K1 = K2 - 1 0026 DY = DYEX(K) 0027 DO 13 L = 1,1,MAX 0027 DO 13 L = 1,1,MAX 0029 L2 = LEX(L) 0029 L1 = L2 - 1 0030 DZ = DZEX(L) 0031 13 FF(L J, J) = FFINT(J1, J2, K1, K2, L1, L2, DX, DY, DZ) 0032 14 CONTPNUE 0033 LF (*NOT, BODY) GO TO 150		14	C=K 1X . K2X					YAW 168
0022 JI = J2 - 1 0023 DX = DXEX(K.J) 0024 K1 = K2 - 1 0026 K1 = K2 - 1 0026 DY = DYEX(K) 0027 DY 13 L = 1.LMAX 0028 L2 = LEX(L) 0029 L2 = LEX(L) 0030 DZ = DZEX(L) 0031 13 FF(L.K.J) = FFINT(J1.J2.K1.K2.L1.L2.DX.DY.DZ) 0032 I4 CONTPAUE 0033 LF (.NOT. BODY) GO TO 150		ıı	EXIX.J)					FAPBOY23
0023 DX = DXEX(K,J) 0024 K2 = KEX(K) 0025 K1 = K2 - 1 0026 DY = DYEX(K) 0027 DX 13 L = 1,LMAX 0029 L2 = LEX(L) 0029 DX = DZEX(L) 0030 DX = DZEX(L) 0030 TY = L2 - 1 0033 TY = L2 - 1 0034 TY = L2 - 1 0035 TY = L2 - 1 0036 TY = L2 - 1 0037 TY = L2		11	2 - 1					F APB DY 24
0024 K2 = KEX(K) 0025 K1 = K2 - 1 0026 DY 13 L = 1.4LMAX 0027 DY 13 L = 1.4LMAX 0029 L2 = LEX(L) 0029 DZ = DZEX(L) 0030 DZ = DZEX(L) 0031 13 FF (L. **J) = FFINT (J1.J2.K1.K2.L1.L2.DX.DY.DZ) 0032 14 CONTRNUE 0033 IF (.NOT. BODY) GO TO 150		H	(Ex(K.))					FARRIW25
0025 K1 = K2 - 1  0026 DY = DYEX(K)  0027 DO 13 L = 1.LMAX  0027 DO 13 L = 1.LMAX  0029 L1 = L2 - 1  0030 DZ = DZEX(L)  0031 13 PF(L & J) = PFINT(J1.J2.K1.K2.L1.L2.DX.DY.DZ)  0032 14 CONTINUE  0033 IF (.NOT. BODY) GO TO 150		11	EX(K)					FARRINZA
0026		11	2 - 1					FARBOY77
0027 DC 13 L = 1.LMAX 0028 L2 = LEX(L) 0029 L1 = L2 - 1 0030 DZ = DZEX(L) 0031 13 PF(L & J) = PFINT(J1.J2.K1.K2.L1.L2.DX.DV.DZ) 0032 14 CONT NUE 0033 IF (.NOT. BODY) GO TO 150		11	rex(K)					FARROYZA
0028		DO 13 F	- = 1 . LMAX					FARBOY29
0029 L1 = L2 - 1 0030 DZ = DZEX(L) 0031 13 PF(L -X.J) = PFINT(J1.J2.K1.K2.L1.L2.DX.DV.DZ) 0032 14 CONTINUE 0033 IF (.NOT. BODY) GO TO 150		12 =	EX(L)					FARBOY30
0030 DZ = DZEX(L) 0031 13 PF(LeX.) = PFINT(J1.J2.K1.K2.L1.L2.DX.NY.DZ) 0032 14 CONTINUE 0033 IF (.NOT. BODY) GO TO 150		= 17	2 - 1					FARROY31
0031 13 PF(L.K.J) = PFINT(J).J2.K1.K2.L1.L2.DX.DY.DZ) 0032 14 CONTINUE 0033 1F (.NOT. BODY) GO TO 150		11	EX(L)					FAPBINT
0032 14 CONTINUE 0033 IF (.NOT. BODY) GO TO 150 C				(J1 .J2.K1 .K2	2.11.12.DX.DV	120.		FARROY33
0033 IF (.NOT. BODY) GO TO 150		8						FARRIW34
THE PARTY OF THE P			T. BODY) G	0 TO 150				FARRINGS
		2						FAPRINAS

FARBDY

LEVEL 2.2 (SEPT 76)

DATE 77.295/15.27.08

	1

1 S N 00 72 S N	3 CONTINUE  DO 10 K=K1X,K2X  J2 = JEX(K,J)  J3 = JEX(K,J)  J3 = JEX(K,J)  J4 = K2 - 1  DY = DYEX(K)  K1 = K2 - 1  DY = DYEX(K)  L2 = LEX(1)  L3 = L2 - 1  D7 = DZEX(1)  PF(1,K,J) = PFINT(J1,J2,K1,K2,L1,L2,DX,DY,DZ)  L2 = L2(LMAX)  L3 - 1	FARROY90  YAW 169  YAW 169  FARROY93  FARROY95  FARROY95  FARROY96  FARROY99  FARROY99  FARROY99  FARROY99  FARROY99  FARROY99  FARROY99  FARROY99  FARROY99
	DO 10 K=K1X.KZX  J2 = JEX(K.J)  J3 = J2 - 1  DX = DXEX(K.J)  K2 = KEX(K.J)  K3 = K2 - 1  DY = DYEX(K.J)  L2 = LEX(1)  L3 = L2 - 1  DY = DYEX(I)  L4 = L2 - 1  DY = DYEX(I)  L5 = LEX(I)  L7 = LEX(I)  L8 - 1  L9 - 1	YAW 169 FARBDY92 FARBDY93 FARBDY94 FARBDY96 FARBDY96 FARBDY96 FARBDY96 FARBDY96 FARBDY96 FARBDY96 FARBDY96 FARBDI01
	J2 = JEX(K.J) J1 = J2 - 1 DX = DXEX(K.J) K2 = KEX(K.J) K1 = K2 - 1 DY = DYEX(K.J) L2 = LEX(I.J) L2 = LEX(I.J) PF(I.SK.J) = PFINT(JI.J2.K1.K2.L1.L2.DX.DV.DZ) L2 = LEX(LMAX) L3 - 1	F ARB DV93 F ARB DV94 F ARB DV94 F ARB DV96 F ARB DV97
	J1 = J2 - 1  DX = DXEX(K.J)  K2 = KEY(K)  K1 = K2 - 1  DY = DYEX(K)  L2 = LEX(1)  DZ = DZEX(1)  PF(1,6K,J) = PFINT(J1.J2.K1.K2.L1.L2.DX.DV.DZ)  L3 = L2 - 1  L4 = L2 - 1  D2 = L2 - 1  D3 = L3 - 1	F ARB DV 9.3 F ARB DV 9.4 F ARB DV 9.5 F ARB DV 9.7 F ARB DV 9.0 F ARB DI 0.1 F ARB DI 0.2 F ARB DI 0.3 F ARB DI 0.4
	DX = DXEX(K, J)  K2 = KEX(K)  K1 = K2 - 1  DY = DYEX(K)  L2 = LEX(L)  L3 = DZEX(L)  PF (1.4K, J) = PFINT(J) JJ 2, KI, K2, L1, L2, DX, DY, DZ)  L2 = LEX(LMAX)  L1 = L2 - 1  L2 = L2 - 1	FARBDY94 FARBDY95 FARBDY96 FARBDY99 FARBDY99 FARBD101 FARBD102 FARBD103 FARBD103
	K2 = KEX(K) K1 = K2 - 1 DY = DYEX(K) L2 = LEX(I) L1 = L2 - 1 DZ = DZEX(I) PF [1, K, J) = PF INT(J) = J2, K1, K2, L1, L2, DX, DY, DZ) L2 = LEX(LMAX) L1 = L2 - 1	FARBOY95 FARBOY96 FARBOY99 FARBOY99 FARBO101 FARBO102 FARBO103 FARBO103
	K1 = K2 - 1 DY = DYEX(K) L2 = LEX(1) L1 = L2 - 1 DZ = DZEX(1) PF(1, K, J) = PFINT(J) J2,K1,K2,L1,L2,DX,DY,DZ) L2 = LEX(LMAX) L1 = L2 - 1	FARBDY95 FARBDY97 FARBDY99 FARBD100 FARBD101 FARBD101 FARBD104 FARBD105
	PY = DYEX(K)  L2 = LEX(1)  L1 = L2 - 1  DZ = DZEX(1)  PF(1.6K.J) = PFINT(JI.J2.K1.K2.L1.L2.DX.DV.DZ)  L2 = LEX(LMAX)	FARBOY98 FARBOY98 FARBOY99 FARBOIO1 FARBOIO2 FARBOIO3 FARBOIO4
	L2 = LEX(1) L1 = L2 - 1 D2 = DZEX(1) PF(1,6K,1) = PFINT(J1,J2,K1,K2,L1,L2,DX,DY,DZ) L2 = LEX(LMAX) L1 = L2 - 1	FARBOV98 FARBOV99 FARBOIO1 FARBOIO2 FARBOIO3 FARBOIO4
	L1 = L2 - 1 DZ = DZEX(1) PF(1.6K.J) = PFINT(J1.J2.K1.K2.L1.L2.DX.DV.DZ) L2 = LEX(LWAX) L1 = L2 - 1	FARBUY 99 FARBUI 01 FARBUI 02 FARBUI 03 FARBUI 04 FARBUI 04
1SN 0081	DZ = DZEX(1) PF(1.0K.J) = PFINT(J1.J2.K1.K2.L1.L2.DX.DY.DZ) L2 = LEX(LMAX) L1 = L2 - 1	FARBDIOD FARBDIOT FARBDIOZ FARBDIO3 FARBDIO4
15N 0082	PF(1.6.J) = PFINT(J1.J2.K1.K2.L1.L2.DX.DY.DZ) L2 = LEX(LMAX) L1 = L2 - 1	FARBDIO2 FARBDIO3 FARBDIO3 FARBDIO4
15N 0083		FARBDIO3 FARBDIO3 FARBDIO4 FARBDIO5
15N 0084	[] = [2 - 1	FARBOIO3 FARBOIO4 FARBOIO5
1SN 0085		FARBDIO4
15N 0086	DZ = DZEX(LMAX)	FARBDIOS
15N 0087	PF(LMAX.K.3) = PFINT (J1. J2.K1. K2.L1.L2.DX.DV.DZ)	
15N 0088	10 CONTINUE	FAPBD106
v		FARBD107
•	C****** RIGHT HAND SIDE BOUNDARY *************	**************
		FARBD109
	K=K2X	VAN 170
	JZ=JEX(K2X,J)	YAW 171
18N 0091	J1 = J2 - 1	FARBD112
ISN 0092	DX=DXEX(K2X,J)	YAW 172
	K2=KEX(K2X)	YAW 173
15N 0094	1 = 12 - 1	FARBD115
15N 0095	DV=DVEXIK2X)	VAW 174
15N 0096	DO 15 L = 2, LMAX1	FARBD117
ISN	12 = LEXIL)	FARBUITE
9500 NSI 28	L = L2 - 1	FARBD119
1SN 0099		FARBDIZO
0100		FARBD121
0101	15 CONTINUE	FARB0122
	150 CONT INLE	FARBD123
ISN 0103	RETURN	FARBD124
15N 0104	E.P.	FARBD125

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

103. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED \*\*\*\*\* END OF COMPILATION \*\*\*\*\*

144K BYTES OF CORE NOT USED

1858. SUBPROGRAM NAME =FARBOY

RECALESTED OPTIONS OPTICE SHOWAP

NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP OPTIONS IN EFFECT

FUNCTION PF INT ( J1 , J2 #1 , K2 , L1 , L2 , DX , DY , DZ )	PFINT 2
COMMON / LARGX / PC(20,20,30) . DJK10X(20,30)	COMF 1X52
1 DJK11X(20,30) . DJK1X(20,30)	COMP IX53
F1 = PC(L1,K1,J1) + (PC(L1,K1,J2) - PC(L1,K1,J1))*DX	PFINT 4
F2 = PC(L1,K2,J1) + (PC(L1,K2,J2) - PC(L1,K2,J1))*DX	PFINT S
F3 = PC(L2, K1, J1) + (PC(L2, K1, J2) - PC(L2, K1, J1))*0x	PEINT 6
F4 = PC(L2,K2,J1) + (PC(L2,K2,J2) - PC(L2,K2,J1))*DX	PFINT 7
F5 = F1 + (F2 - F1)*DY	PFINT 8
F6 = F3 + (F4 - F3)*DY	PEINT O
PFINT = FS + (F6 - FS)*D7	PFINT 10
RETURN	PFINT 11
END	PFINT 12

40PTIONS IN EFFECT+SOURCE EBGDIC NOLIST NORECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

610. SUBPROGRAM NAME = PFINT 11. PRUGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

164K BYTES OF CORE NOT USED

LEVEL 2.2 (SEPT 76)

REQUESTED OPTIONS OPT(2) , NOMAP

NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOUPCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP OPTIONS IN EFFECT

COMMON / EARGX / PC(20,20,30)		**** SOLVE	S FOR POT	SOLVES FOR POTENTIAL IN COARSE EXTERIOR CARTESIAN GRID	JARSE EXTERI	CARIESIA	THREE CIAS 7	***SOLVEX
COMMON   LARGX   PETRO   DATE   1 COMMON   LARGX   PETRO   DATE   1 COMMON   EXTER   XITX(20)   ETARX(20)   XITX(20)   XINX(30)   ETALX(30)   XINX(30)   XINX(30)   ETALX(30)   ET	U							SOLVEX
COMMON / EXTER / XIEX(30) - ETAX(20) - XIX(20) - XIX(20) - XIXX(30) - XIXX(30		COMMON	LARGX	PC(20,20,30	101	. DJK10X420	.30)	COMF IX52
THE CONTROL   TANGER   TANGE		COMMON		XIEX(30)	, ETAX(20)	. ZTX(20)		. EXTER
2 FTARX(20) FTARX(20) XMINX XMAXX X YMINX YMAXX X YMINX YMAXX YMAXX YMAXX YMAXX YMAXX YMINX YMAXX YMAX		-		X11X(30)	, XICX(30)	. XIRX(30)	. ETALX(30)	. EXTER
YMAXX   YMAXX   YMINX   YMINX   YMINX		~		ETACX(20)	ETARX(20)	. XMINX	. XMAXX	. EXTER
4 ZLVLX FRULX 7 CVLX 7 ZLVUX 5  5 ZVUX		3		YMAXX	- ZMAXX	. YMINX	. ZMINX	. EXTER
SPAUX   CRUNX   CHAXX   CHAXX   CHAXX   CDMMON   INDEXX   JMAXX   CMMNGLX   JMAPR   CRUDR   CMMNGLX		•		ZLVLX	. ZRVLX	. ZCMLX	· ZLVUX	. EXTER
TOMMON / INDEXX / JMAXX   KTAXX   LMAXX   KTAIX		2		ZPWUX	ZCWUX			EXTER
1 KTIPX KTIPIX JAEX(20) JTEX(20)  2 LWMSUX KTIPIX JAEX(20) JTEX(20)  3 LWAXXI KRONTX JPLX  COMMON / FLAGS / 1D1SK 15AVE 1PLOT MSHINT   2 EXTMSH REWESH 1FLORT 1GROV   2 EXTMSH REWESH 1FLORT 1GROV   3 EXTMSH REWESH 1FLORT 1GROV   4 FOR 1SOLV MSCART 1BOOT   5 FOR 1SOLV   1TVISC   1TVIST   1FOLLT   5 FOR 1SOLV   1TVISC   1TWIST   1FOLLT   5 FOR 1SOLV   1TWIST   1FOLLT   6 FOR 1SOLV   1TWIST   1TROUT   7 FOR 1SOLV   1TWIST   1TWIST   1TWIST   7 FOLLT   1TWIST   1TWIST   1TWIST   7 FOLLT   1TWIST   1TWIST   1TWIST   7 FOLLT   1TWIST   1TWIST   1TWIST   7 FOLLT   1TWIST   1TWIST   7 FOLLT   1TWIST   1TWIST   7 FOLLT		NOWWO		, JMAXX	- KMAXX	. LMAXX	. KTM1X	. INDEX
2 LMAKXI				KTIPX	, KTIPIX	. JEX (20)	. JTEX(20)	. INDEX
3 COMMON / FLAGS / 1015K		2		LWNGUX	- LWNGLX	. JMAXXI	. KMAXXI	. THINE XX
### COMMON / FLAGS / 1015K		3		LMAXX1	. KROOTX	. JP1X		INDEX
1 SOLV	15N 0006	COMMON	FLAGS	IDISK	, ISAVE	· IPLOT	. MSHINT	. FLAGS
2				SOLV	, WRCPRT	. BBCPRT	. RODY	. FLAGS
3 EXTMSH REMESH INAPR VAW 4 IBIUMP INISC ITWIST IFOILT 5 SOLV NECTOR IPLOT MEHON METON MET		2		FCR	. TSPAN	. IF INR	. ICRUDR	. INPTX
The color of the		3		EXTMSH	, REMESH	. IMAPR	. YAW	. INPTX
S		•		IBUMP	IVISC	. ITWIST	. IFOILT	. INPTX
LDGICAL   LDGICAL   LDGICAL   LDGICAL   SOLV   WGCPRT   BGCPRT   BGCPRT   BGDOY		co.		18001N	. AXISYM	. AREA	. IBLOUT	INPTX
1		L061QL		IDISK	, ISAVE	· IPLOT	. MSHINT	. COMF 1X
2 FCR - TSPAN - TFINR - ICRUDR - TSPAN - TFINR - ICRUDR - TAWN - TELMSH - PEMESH - IMAPR - YAW - TBUMP - 1V1SC - TIMIST - TEULT - TBUDIN - AXISYM - AREA - TBLOUT - TBUDIN - AXISYM - AREA - TBLOUT - TBUDIN - TBU				SOLV	. WBCPRT	. BBCPRT	• 800Y	. COMF IX
3 EXTMSH		2		FCR	. TSPAN	. IF INE	. ICRUDR	. COMF IX
4 1BUMP 1V1SC 1TWIST 1FOILT 1BUMP 1V1SC 1TWIST 1FOILT 1BUND		m		EXTMSH	DEMESH	. IMAPR	. YAW	. COMP IX
S		•		1BUMP	. IVISC.	* ITWIST	. PFOILT	. COMFIX
COMMON / RELAXP / MAXIT		ıc.		18001N	. AXISYM	. AREA	. IBLOUT	COMP 1X
1 INCRX RTEST RESTRAINS RESURT  2 RSUBX RESTRAIGO, EPS BESEX  3 WII NIX BES BESEX  4 LE BIGRL LE RED RESTRAIN RED  5 LE RED BIGRL RESTRAIN RED  6 LE RESTRAIN RED RESTRAIN RESTRAINS RESTRAIN RESTRAIN RESTRAIN RESTRAIN RESTRAIN RESTRAINS RESTRAIN R		COMMON	RELAXP ,	/ MAXIT	MAXITN	. MAXITX	. INCR	. RELAXD
2 RSUBX RESIDJ(30), EPS BESEX 3 W1 W1 W1X BESEX 4 LE BIGRL BE RED 6 LE FROR NEUP 6 COMMON / JUMP / AZU CZU CZU CZU 1 CZU CZU CZU CZU 2 CUMMON / DARM / A1 A2 A3 A4 1 A5 GAMMA MACHNO COE 2 CX3(30) CX4(30) CX2(30) 4 CX4(30) CX4(30) CX2(30) 5 GAMMA MACHNO COE 6 FMEXP(2) CX1(30) CX2(30) 6 FMEXP(30) CX3(30) CX2(30) 7 CMMON / BOVI / XNOSE XTAIL NBIN(2) WBIN(2,35)		-		INCRX	, RTEST	. RTESTX	. RSUB	. RELAXD
3 WIY WIN TO THE WIND WIND WIND WIND WIND WIND WIND WIND		2		RSUBX			. EPSEX	. PELAXP
4 LRO BIGRL BER KE  5 LE FRROR COUNT SED COUNT  6 COMMON / JUMP / AZU  1 COMMON / JUMP / AZU  2 CZU CZU CZL  1 CUMMON / DARM / AI  2 CUMMON / DARM / AI  4 CZZ SED CZZ  5 FWEXP(2) CZI CDF  6 CZ SED CZZ  7 CZZ  8 GAMMA MACHNO CDE  2 CZ SED CZZ  8 GAMMA MACHNO CDE  2 CZ SED CZZ  8 GAMMA MACHNO CDE  5 FWEXP(2) CZZ  8 GAMMA MACHNO CDE  5 FWEXP(2) CZZ  8 GAMMA MACHNO CDE  5 FWEXP(2) CZZ  8 GAMMA MACHNO CDE  6 FWEXP(2) CZZ  8 GAMMA MACHNO CDE  7 FWEXP(2) CZZ  8 GAMMA MACHNO CZZ  8 FWEXP(2) CZZ  8		n		7	XIX.	. JRD	. KRD	. PELAXP
5 LE . FRROR . KOUNT . NSUP . GOMMON / JUMP / AZU . CZL . GOFF  1 COMMON / JUMP / 30.90) . PCOFF (30.90) . PUMPX (20.90) . PUMPX (20.90) . PUMPX (20.30) . COMMON / PARM / AI . AZ . AZ . AZ . AZ . AA . AA . AZ .		•		LRD	. BIGRL	. JE	• KE	. PELAXP
6 COMMON / JUMP / AZU , A7L , BZU , BZL , 1 1		c		<u></u>	. ERROR	. KOUNT	. NSUP	. PENESH
COMMON / JUMP / AZU		9		IPASS				REMESH .
1 CZU CZL CDFF 2 PJUMP(30,90) , PCDFF(30,90) 3 KPINDX(30,90) , PLUMPX(20,90) 4 CUMMON / PARM / A1	•	COMMON	SUMP	AZU	. A7L	• BZU	• BZL	. JUMP
2				CZO	. נת	, COFF		. COMP IXI
3 KPINDX(30,90) , PJUMPX(20,30) CUMMON / PARM / A1		2		PJUMP (30.90	00	. PCDFF(30.5	106	. COMFIXE
/ PARM / A1		n		KP INDX (30.	106	. PJUMPX (20	.30)	COMP IX 1
1 A5 GAMMA MACHND CDE C2 FMEXP(2) CK1(30) CK2(30) CK3(30) CK3(30) CK3(30) CK3(30) CK3(30) CK2(30) CK2(	•	COMMON		VI V	. A2	. A3	. A4	. PAPM
2 C2 • FMFXP(2) • CK1(30) • CK2(30) • CK2(30) • CK2(30) • CK3(30) • CK2(30) • GX2(30)				A5	. GAMMA	. MACHNO	• CDE	. PARM
3 CK3(30) CK4(30) CK51(30) . 4 CK52(30,90) . CK1X(30) . CK2X(30) . 5 BLDL . WCDF . WCDF . CK1X(30) . CK2X(30) . CDMMIN / HODVI / XNDSE . XTAIL . NBIN(2) . XBIN(2,35).		2		2	· EMEXP(2)	. CK1(30)	. CK2(30)	. PARM
4 CK52(30,90) , CK1X(30) , CK2X(30) , 5 5 BLDL , WCDF REAL MACHNO COMMON / HODVI / XNDSE , XTAIL , NRIN(2) , XBIN(2,35).		3		CK3(30)	• CK4(30)	• CK51(30)		. COMP TXT
S BLDL , WCOF  REAL MACHNO COMMON / HODVI / XNOSE , XTAIL , NRIN(2) , XBIN(2,35).		4		CK52(30,90		. CK1X(30)	. CK2X(30)	. COMF EXE
REAL COMMIN / HODVI / XNISE , XTAIL , NRIN(2) , XBIN(2,35).		S.		BLOL	. WCDF			COMF IX12
COMMIN / HODVI / XNISE . XTAIL . NBIN(2) . XBIN(2,35).		REAL		MACHNO				COMP IXE
		COMMON	/ HODA!	XNUSE	*****		1	

				STAIL	•	ALPHAR		NBPTS(90)		R(90)	. 80	NOON	
	.,			KBMX (90)	. (00	CMN		Cex		AFK(15)	. 80	BODY	9
				BFK(15)	:	CFK(15)		AFL( 15)		BFL(15)	. 80	AGOR	9
	•			GL(15)		ABL(15)		BBL(15)		CBL (15)	. 80	BODY	1
	•	9		ACE(2)	•	BCL(2)		CCL(2)		BTYPE	. 80	MODY	
	,			XPBU(90)	. 100	XRRL (90)		DZRRU(90)		DZRBL (90)	5	CHENT	
				NRBU	•	NRBL		YRB		ZRBU	. 80	RODV	0
				ZPRE		KBMXX (30)		JNOSEX		STAILX	. 80	ROOV	
				RR IN (2.35)	.35).	XNOSEX		XTAILX		YOR	F	FIXCYA	
15N 0013		COMMON	COMMON / BODY? /		. (06	FY (30.90)		FZ (30.90)	1	PARTY STORES		COMP TX2	
					106.01			LBU(20-90)		LRD(20-90).		COMF 1X24	
				MADTE	MADTEXIZOR	1800/30.001						COME BY 26	
		4 1		I BITTE SO TO	102.0	100000		1 BOX (20 - 30)			5 5	COME TY 26	
				EVX(20-30)	301	(De120.00)		-				COME NO	
15N 00 14		COMMUN	/ PODDY			KRWAXX						80 200	
100 100					•	I BIN		DBC1120.001					
				KBS		PACE 1 20.00		20000000				COME BY S	
	No. of Street, or other			NI UNO	LOE OCIALDED		1	DBC VC V DBG	. ;		3 8	COME INS	
				TO BOOK	2000	Poaci		PORC IN		* 17000	3 6	COME AND	2 :
				SAPPHION		SALDHYIZO		CHESCON.	•	MOCEA		COME TASS	2 5
3.00		-				100		20.00.			3 6	-	? :
CION NCI		NOW WON	Jenore /	TEGO.		The Contract of the Contract o	•	IBSIDE		EL ABOLTO)		CUMP IX34	4 !
				ETABL(10)	101	ZHOD ( 20)	•	NRHS		XRBS(100)	5	COMF 1X35	2
15N 0016		COMMON	SCRACH	/ MU(20.30.2)	30 .21		•	POLD (20, 30, 3)	• 3			COMF IX37	<u>.</u>
				WC2(2)	VC2(20,30,2)			VC(20.30.2)			5	COMF 1X38	60
15N 0017		COMMON	/ SNIN /	WRODI	•	XLER.		XTER		TIP	. 41	NING	8
				XLET	•	XTET	•	SREF	•	SWEEP		INDTX	1
		2		ME	•	ME1(10)		XE1(10)	•	STRUE	2	INPTX	•
		3		MEI	•	WEI(10)	•	XTE1(10)	•	SKPOS	Z .	INPTX	6
				CRODIT	•	SSPAN		TH ICK(11)		ZWNGWL	- 1	INPTX	0
	The second second	2		NEAN	•	YP(11)	•	THETP(11)		NTWST		AIRFOILS	5
	•	9		YTWST(11)	11)	INUX(11)		INCX (11)	•	XF(180.11)		ATRF OTLE	9
				ZF(180.11)	.11).	KSMTHS(11)		MOMX		KLE(30)		INPT X	-
	*	8		XI.EW(30)	. (0)	CDPD (30)		COPDW(30)		CORDIN(11).		WING	0
	•	•		XTE(30)		RFACT	•	CMEAN	•	XTEW (30)	· WI	WING 1	
				NSO	•	NS1	•	KX0(12)		KX1(12)	. AT	AIRFOTE	60
	•			NX0(12)		NX1(12)		VX0(12.10)		W1(12,10)		ATRFOTE	0.
	•	U		XX0(12,10)	.101.	XX1(12,10)		DXR0 (12)		DXR1(12)	. A1	AIRFOITO	0
		•		DXT0(12)	2) .	DXT1(12)		ALPHAM		NTIPLE	. AI	AIRFOLL	1
		W		NTIPXI	•	XLEWX (30)		XTEWX(30)		CORDX	£	CHOPD	
		lı.		CAV	•	XOR		XLEWP(30)		XTEWP(30)	· VS	VSCFXB	
	•			KSWICH							V.S	VSCFX3	2
15N 0018		COMMON	/ CCOX /	DE1X(30)	. (0)	DE2X(30)		DE 3X (30)		DH1X(30)	· LC	rcox	2
				DH2X(30)	. (0)	DH3X(30)		OF1X(30)		DL 2X(30)	. 10	rcox	3
	.,			DL3X(30)	. (0)	DK1(90)		DK2(90)		DK3(90)	7	LC0X	4
15N 0019		NOWWOO	/ XYCOE /		. (0	XIY(30,90)		X1X(30)			S	COMP IX18	8
		-		XIV3(30.90)	106.01		•	XX(30)			5	COMF TX19	0
	.,			XINK (30.90)	106.01						3	COMF 1X20	0
15N 0020		NOMMON	/ MESHCO	/ JEX(30.90).	.600.	KEX (30)	•	LE X( 20)		DXEX (30,90), MESHCD	1 . ME	SHO	2
				DVEX (30)	. (0)	DZEX(20)	•	KIN(30)		JINK ( 20 .30) . MESHOD	1) . ME	SHO	m
				LIN(20)		DY IN (30)		DZ IN (20)		KINB(20)	. KE	.MESHO	• 1
		5.		DY INB ( 20 )	. 102	LINE (20)		DZ INB(20)		JINB (20)	-	DHS3M.	0
				LINKE	JINKM1 (20,30)	10	•	KE XB (30)		LEXB(20)		CUMP IX	2
		2		DYEXB(30)	30)	DZEXB(20)	•	JCDN		acup.	N. T.	MESHOD	1

	RROW	ISN 0021	COMMON / EPLT / CEF , FRROF , ERRF (1000), CRF		COMF 1X55
00 00 00 00 00 00 00 00 00 00 00 00 00	COMPINY TAMES FERRALIDOD, CRX , R3X , R6X , COMPINY COMPINY R3X , R6X , R7X , R6X , COMPINY COMPINY R3X , R6X , R7X , R6X , COMPINY COMPINY R3X , R61 , R7X , R63 , COMPINY COMPINY R3X , R61 , R7X , R63 , COMPINY COMPINY R34 , R61 , R34 , COMPINY COMPINY R34 , R41		RSDOF . PSDF(1000). CEX .	· xc	COMF 1X5
00 00 00 00 00 00 00 00 00 00 00 00 00	COMPINATION   VANOR   VAIX   VOX   VAX   VAX   VAX   COMPINATION		EPPX(1000), CPX , RSDOX ,	K(1000)	COMF 1X5
	1	022	/ YAWOPT / KIX . KZX . K3X .	•	COMF IXB
	COMMUNA TAMEZ TOTO 1 TELED 10 C C C C C C C C C C C C C C C C C C		. K6X . K7X .		COMF IXE
	COMMIN TARZY 1120-30) - C(20)		KPIX		COMP IXE
	DIMENSION   A(20)   PAPPIZO    GO TO SOUR		1(20,30)		SOLVEX
	DAME SIDN   DAME COOP   PAPE		A(20) , B(20) , C(20) .		SOLVERZ
	DIMENSION   LSGLV10, 0   FUND   DIMENSION   DIMENSIO		PXM(20) . PXP(20)		SOLVEXZ
	DIMENSION   PP120-20.30   Figh	025	LSOLV(20) . TEMP(20) . B6(20) .	201	COMP 115
	The control of the	026			
	TF (-MOT-BODY) GD TO 500  KB = KBWXXI)  CDE = ETAX (KB+1)-ETAX (KB) + ETAX (KB-1)  CDE = CDE2 / (ETAX (KB+1)-ETAX (KB))  CDE = 1,-CDE 2  COE = 1,-CDE 3  COE =	027			
	IF (-NOT-BROY) GO TO 500   KB = KBHXXI1)   COE2 = ETAX(KB+1)-5*(ETAX(KB)+ETAX(KB-1))     COE2 = COE2/(ETAX(KB+1)-5*(ETAX(KB)+ETAX(KB-1))     COE2 = COE2/(ETAX(KB+1)-ETAX(KB))     COE1 = 1COE2     COE2 = COE2		XLSMF=0.0		1
	THE CANDING HOUSE OF TO TO TO SOO  KEES E COEZ/(ETAX(KB+1)-ETAX(KB))  COEZ E COEZ/(ETAX(KB+1)-ETAX(KB)  COEZ E COEZ E COEZ/(ETAX(KB+1)-ETAX(KB)  COEZ E COEZ E COEZ/(ETAX(KB+1)-ETAX(KB)  COEZ E COE				EPRPLTE
	CDE2 = CDE2/(ETAX(KB+1)-5*(ETAX(KB-1))  CDE2 = CDE2/(ETAX(KB+1)-ETAX(KB))  CDE1 = 1CDE2  COE1 = 1CDE2  COE1 = L-CDE2  COE1 = CDE2/(ETAX(KB+1)-ETAX(KB))  COE1 = CDE2/(ETAX(KB+1)-ETAX(KB))  COE1 = L-CDE2  COE1 = L-CDE3  COE1 = L-	620	( NOT - HODY)		CHEN 134
	COE = ETAX (RHHI) - STETAX (RHI) - COE = 1 - C	031	11		CHENISA
	COEC = COEZ/TETAXTKR+1)-ETAXTKB)  COEC = COEZ/TETAXTKR+1)-ETAXTKB)  COEC = COEZ/TETAXTKR+1)-ETAXTKB)  COEC = COEZ/TETAXTKR+1)-ETAXTKB)  COEC = COEZ/TETATIONE  COEC = TETATIONE  COEC = TETATI	0.32			CHEN 13
	CORTINE  COLL WIG SURFACE BOUNDARY ************************************	033			CHEN 134
	C CALL WIGEDY  C CALL BODDON  C MESH = JMAXX*CHMAXX*CHMAXX  KOUNT = KOUNT + 1  ITER = ITER + 1  ITER = ITER + 1  ITER = O.0  RIGH = O.0  ERRAY = O.0  ERRAY = O.0  ERRAY = O.0  ERRAY = O.0  C CANNOT SET UPSTREAM P VALUES ************************************		COEI		CHEN 134
	CALL WING SURFACE BOUNDARY ************************************		DO CONTINUE		CHEN 134
	C CALL WAGBDY C CALL WAGBDY C TF (BODY) CALL BODBDY C WESH = JWAXXEKMAXX * LMAXX KOUNT = 0 DO 900 111 = 1.*MAX1XX KOUNT = 1 TER + 1 ITER = 1TER + 1 ITER = 1TER + 1 ITER = 0 FIGH = 0 FIGH = 0.0 FIGH				SOLVEXZ
CALL WNGBDY C C***********************************	CALL WNGBDY  C. THE HODY) CALL BODBOY  C. THE HODY) CALL BODBOY  C. THESH = JMAXYENMAXX = LMAXYEN  KOUNT = 0  D. DOOD 11 = 1,4MAX   11  ITER = ITER + 1  ITER = ITER + 1  ITER = 10  C. THESH = 0.0  ENSUP = 0  RSDA = 0.0  ENRAW = 1.4MAXX  DO 120 M = 1.4MAXX  DO 120 M = 1.4MAXX		WIND SORFACE DUDOWNY		SOLVEXE
C C***********************************	Consisted Bidoy Surface Boundary assessmentation terrorises and the consistence of the co		ACCOUNT TAKE		SOLVEY?
C. TF (HODY) CALL BODBDY C. C. TF (HODY) CALL BODBDY C. C. TESH = JWAXX**KMAXX**LMAXX KOUNT = 0 DO 900 111 = 1.*MAX1TX KOUNT = 0 DO 900 111 = 1.*MAX1TX KOUNT = KOUNT + 1 1TERC = 1TER + 1 1TERC = 1TERC + 1 C. C. TERC + 1 C.	C IF (BODY) CALL BODBOY  C MESH = JWAXX**KWAXX**LWAXX  KOUNT = 0  DO 900 111 = 1.MAX1TX  KOUNT = KOUNT + 1  1TERC = 1TER + 1  1TERC = 1TER + 1  1TERC = 1TER + 0  C STREAM = 0.0  FIGHL = 0.0  ERROR = 0.0  FIGHL = 0				SON VEXT
C. IF (HODY) CALL BODBDY C. C	C SESSESSE TERATION LOOP SESSESSESSESSESSESSESSESSESSESSESSESSES		BODY SURFACE BOUNDARY	*******	SOLVEXE
F (HODY) CALL BODBDY   C.   C.   E.   E.   E.   E.   E.   E.	IF (HODY) CALL BODBDY  C CARREST ITERATION LOOP **********************************	v			SOLVEXE
C MESH = JWAXX**KMAXX**LMAXX KOUNT = 0 DO 900 111 = 1.*MAX1TX KOUNT = 0 DO 900 111 = 1.*MAX1TX KOUNT = TER + 1 1TER = 1TER + 1 1TER = 1TER + 1 1TER = 0.0 C G MSUP = 0 RIGHL = 0.0 ERROR = 0.0 ERROR = 0.0 ERRAW = 0.0 C G MSUP = 0 ERRAW = 0.0 ERRAW = 0.0 C G MSUP = 0 ERRAW = 0.0 ERRAW	C MESH = JWAXX***********************************	037	(HODY) CALL		SULVEXE
C MESH = JWAXX**KMAXX**LMAXX KOUNT = 0 DO 900 111 = 1.*MAX1TX KOUNT = NTER + 1 1TER = 1TER + 1 1TERC = 1TER + 1 1TERC = 1TERC + 1 C C*****C MSUP = 0 RIGRL = 0.0 RIGRAW = 0.0 C C*********************************	C MESH = JWAXX*KMAXX*LMAXX  KOUN T = 0  DO 900 111 = 1.MAX1TX  KOUNT = KOUNT + 1  1TER C = 1TER + 1  1TER C = 1TER C + 1  C C*********************************	v			SOLVEXE
C MESH = JWAXX***********************************	C MESH = JMAXX***********************************	**	******	*******	*SOLVEX3
MESH = JMAXX ** KWAXX ** LMAXX **  KOUNT = 0  DO 900 111 = 1, MAXITX  KOUNT + 1  1TER = 1TER + 1  TERC = 1TER + 1  TERC = 1TERC + 1  C C*********************************	MESH = JMAXX**MAXX**LMAXX  KOUNT = 0  DO 900 111 = 1,MAX1TX  KOUNT = KOUNT + 1  1 TERC = 1TER + 1  1 TERC = 1TERC + 1  C C****C***C***C***C***C***C***C***C**	U			SULVEXE
MOUNT = 0  DO 900 1111 = 1,0MAXJTX  MOUNT = MOUNT + 1  JTER = 17ER + 1  JTERC = 17ER + 1  C C*********************************	MCDUNT = 0  DO 900 111 = 1.0MAXITX  KCOUNT = ENCOUNT + 1  ITER = ITER + 1  ITER = ITER + 1  ITER = ITER + 1  ITER = O	039	11		ERRPLTB
DO 900 111 = 1.MAXITX  KOUNT = KOUNT + 1  1TER = 1TER + 1  1TERC = 1TERC + 1  C  C********************************	DO 900 111 = 1.MAXITX  KOUNT = KOUNT + 1  ITER = 1TER + 1  ITER C = 1TER C + 1  C  C. C	040	KOUNT = 0		SOL VEX3
MOUNT = MOUNT + 1  TER = 1TER + 1  TERC = 1TER + 1  C C+++++++  C C+++++++++++++++++++	KDUNT = KQUNT + 1  ITER = ITER + 1  ITERC = ITER + 1  C C.	1041	11		SOLVEXE
17ER = 17ER + 1  17ERC = 17ERC + 1  C C C C C C C C C C C C C C C C C C	TTER = ITER + 1  ITERC = ITERC + 1  C	1042	KOUNT = KOUNT + 1		SOLVEX3
TTERC = ITERC + 1  C. ***********************************	TTERC = ITERC + 1  Contract INITIALIZE ************************************	043	11ER = 11ER + 1		SOL VEXA
C C***********************************	Control Initialize ************************************	1044			SOI VEXA
C. MSUP = 0  RIGRL = 0.0  RIGRL = 0.0  ERROR = 0.0  RSDAV = 0.  C. ERRAV = 0.0  C. LETYAW GO TO 125  DO 120 M = 1.4MAXX	C. NSUP = 0 RIGRL = 0.0 RIGRL				SIN VEXA
C NSUP = 0  PIGRL = 0.0  ERROR = 0.0  RSDAV = 0.  C ERRAW = 0.  C TE(YAW) GO TO 125  DO 120 W = 1.6 MAXX	SOLVI  FIGRL = 0.0  FIGRL = 0.0  FROM = 0.0  FROM = 0.0  FROM = 0.0  FROM = 0.0  Constant SET UPSTREAM P VALIES anatatatatatatatatatatatatatatatatatata	**	*************	*******	SOLVEXA
NSUP = 0  RIGRL = 0.0  ERROR = 0.0  RSDAV = 0.  C  CHARAV = 0.  C  IF(YAW) GD TD 125  DO 120 W = 1.6MAXX	MSUP = 0  RIGRL = 0.0  ERROR = 0.0  ERRAV = 0.0  ERRAV = 0.0  C. C. SERVINE SET UPSTREAM P VALUES ************************************				SOLVEXA
RIGRL = 0.0 ERROR = 0.0 RSDAV = 0.  ERRAV = 0.  C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	FIGHT = 0.0  ERROR = 0.0  RSDAV = 0.  RSDAV = 0.  ERRAV = 0.  C.  C.  STILVIAN  C.  FERROR  FERROR  FOR PAINT		-		SON VEXA
ERROR = 0.0  RSDAV = 0.  C CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	ERROR = 0.0  RSDAV = 0.  ERRAV = 0.  C.  C.  C.  C.  C.  C.  C.  C.  C.	940	11		SOLVEXA
ERRAV = 0.  C. C	RSDAV = 0.  ERRAV = 0.  C.  C.  C.  C.  C.  C.  C.  C.  C.	1047	11		SOL VEXA
C. C	ERRAV = 0.  C COCCUSOR SET UPSTREAM P VALUES ************************************	900	-		FDDD! TR
C C******* SET UPSTREAM P VALUES C IF(YAW) GO TO 125 DO 120 M = 1.LMAXX	C SOLVI C TF(YAW) GO TO 125 DO 120 M = 1.6LMAXX DO 120 M = 1.6KMAXX SOLVI SOLVI SOLVI SOLVI SOLVI SOLVI SOLVI	640	-		FRAPLTE
C. IF(YAW) GO TO 125 DO 120 M = 1.6MAXX	Coccases SET UPSTREAM P VALUES appearances access a				Sm VFX
DO 120 M = 1.LMAXX	C 1F(YAW) GO TO 125 DO 120 M = 1.6LMAXX DO 120 MM = 1.6KMAXX		SFT (PSTREAM P VANIFS setsettestatestatestatestatestates	********	SOI VEX
1F(YAW) DO 120	1F(YAW) GO TO 125  DO 120 M = 1.6LMAXX  DO 120 MM = 1.6KMAXX				STR VEXS
00 120	DO 120 M = $1_0$ LMAXX DO 120 MM = $1_0$ KMAXX		TECYAN GO TO 125		
200	DO 120 MM = 1.0KMAXX	250	2		
	DO IZO MI E ISKRAXX	200	200		200
2		053			

20	PROST = SAPT(XX(1) = X1=0 DRH/C2)
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LEVEL	2.5	(SEPT 76) SOLVEX DS/360 FORTRAN H EXTENDED	DATE 77.295/15.27.19
ISI			SOLVE122
ISN	N 0137	8	SOLVE123
ISI		PXM(L)	SOLVE124
151	V 0139	PXP(L) = (PP(LoKoJP1)	SOLVE125
ISI	V 0140	8 CONTINUE	SOLVE126
			SOLVEIRT
		Casassa COMPLIFE 1-Met. Attentatatatatatatatatatatatatatatatatata	*******SOLVEIZE
		Commence of the commence of th	SOLVE129
ISI	4 0141		SOLVEIRO
ISN		WC(L oKs11)	SOLVEI31
ISI		MU(L -K-11) = 0	SR VET32
ISN	N 0144	2 CONTINUE	SOLVEISS
		·	SOLVE134
		Consess TEST FOR SUPERSONIC FLOW assessessessessessessesses	******
			SOLVE136
ISN	N 0145		SOLVEI37
ISN			SOLVEI36
ISN		13 MU(L = K = 11) = 1	SOLVE139
ISI			SOLVEIAO
ISN	4 0149	12 CONTINUE	SOLVEIAI
			SOLVE142
		C****** TEST FOR FULLY CONSERVATIVE OR NON CONSERVATIVE ********	*
			SOLVEIAA
ISN	N 0150		SOLVETAS
ISI	4 0152	22 00 21 L = L1, L2	SOLVE146
		C IF (MJ(L.K.12).EQ.1 .AND. MJ(L.K.11).EQ.0) MU(L.K.12) = 0	FCRNOR 4
ISI			FCPNOR 5
ISN	4 0154	i4 MU(L,K,12) = MU(L,K,11)	FCRNOR 6
ISN	N 0155	S 21 CONTINUE	SOLVETAB
ISI			SOLVE149
1		Cestate SET UP TRIDIAGONAL SYSTEM *****************	****
35			
		Coopean TERM 1 - FLLIDTIC Appendentates appendent the specific appendent to the specific appende	***
			SOLVEISA
ISN	2510	200	SOLVETSS
2		B(C.)	SOLVEISE
NSI		D(L) = 0.	SOLVEIST
157			SULVEISE
TO NOT	2010		
2		1 + DESKINSOPIL K. 1011)	
TAN	4 0164		SON VETES
2		:	SOLVEISZ SOLVEISZ
			*****
ISN	N 0165	5 1F (J -EQ- 2) GO TO 16	SOLVF166
ISN	4 0167	77 60 14 L = L1.1.2	SOLVE167
ISI	4 0168	JF (MULL-K+)	SALVEIGE
ISN	N 0170	R(L) = B(L)	SOLVE169
151	4 0171	D(L) = D(L) + VC(L+K+)	SOLVEIPO
		-	SOLVEITI
ISI	ISN 0172	2 14 CONTINUE	SOLVEITE

ISN 0173		16 CONT PACE	
	00	CATATAT TERM 3 excesses conscenses conscenses and conscenses of the conscenses of th	SOLVE176 SOLVE176
ISN 01	0174	DO 19 L = L1,L2	SOLVETT
	5113	IF (K .E0. 1) B(L) = B(L) - DJK11X(K,J)	SOLVETTE
	2710	= B(L) - DJK10X(K,J)	SOLVEIPO
ISN OI	0178	D(L) = D(L) + DJK10X(K,J)*(PP(L,KM1,JP) - PP(L,K,JP))	SOLVEIBO
	01.70	1 + DANIMIKAJINIKAJINIKAJINI - PPILAKAJII	SOR VENEZ
			SOLVETAR
		Concesso TERM A expensesations essesses essesses essesses esses essess	*****SOLVEIRA
	U		SOLVEIRS
15N 01	0180	00 23 L = L1.L2	SOLVEIRA
ISN 01	1910	A(L) = DLIX(L)	SOLVEIBT
	0182	$B(\Gamma) = B(\Gamma) - 0\Gamma S \times (\Gamma)$	SOLVEIRE
	0183	3	SOLVEIRG
ISN 01	0184	D(L) = D(L) + D(L)X(L) + P(L-1)X(JP) - D(LX(L) + PP(L, K, JP)	SOLVE190
		-	SOLVEIGI
	2010		SOLVETOP
	00	04 01 03 (200)	SULVETOS
	0188	20 39 L = L1.62	SOLVE194
	60100	מענונו	SULVEISS
150	36	34 BOLD # U	SOLVEIGO
			SOLVEIG
	, (		
		THE PORT OF THE STANKING IN THE SECOND STANKING	SOLVEZOO
ISN 01	0192	40 CONTINUE	SOLVEZOI
ISN 01	0193	CI = 1./CGPDx	SOLVEZOZ
ISN 01	1610	00 41 L = L1.L2	SOLVEZA
15N 01	9610	B6(L) = -45*C1*.25*X1CX(J)*(PP(L,KP1,JP1) + PP(L,K,JP1) -	SOL VE204
		1 POLD(L, KP1,112) - POLD(L, K,112))	SOLVEZOS
	9610	41 CONTINA	SOLVEROS
	0197	DO 42 L = L1.62	SOLVE207
15N 01	9610	F7(L) = -A5*C1*.25*X1CX(J)*(PP(L,K,JP1) + PP(L,KM1,JP1) -	SOLVEZOB
		-	SOLVEZOS
	6610	42 CONTINUE	SOLVEZIO
	0500	DO 24 L = L1.L2	SOLVERI
ISN 02	0201	E	SOLVEZIZ
		1 2.*PP(L.KP1.JP) - 2.*POLD(L.KM1.111) + POLD(L.KP1.112) -	SOLVE213
		N	SOLVE214
	0205	24 CONTINUE	SOLVE215
	0203		SOLVE216
15N 02	0204	TEMP(L) = DJKIX(K,J)*(PP(L,KM1,JM1) - PP(L,KP1,JM1) -	SOLVE217
10 112			SOLVE218
ISN 02	0205	25 CONTINUE	SOLVEZIO
		CASSESSE FXTDA COANWISE TEDMS IN TERM I SESSESSESSESSESSESSESSESSESSESSES	SOLVE220
	·		SOLVERR
ISN 02	0206	00 45 L = L1.L2	SOLVERES
ISN 02	0207		
		200	SOLVE224

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SOLVE226
SOLVE228
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Cossess DIRICHLET BC ON RODY SURFACE WITHIN BOUNDARIES OF FINE MESH
D(L) = D(L) + B7(L)*DX10X(K,J)*(PP(L,KM1,JP) - PP(L,K,JP))
+ B6(L)*DJX11X(K,J)*(PP(L,KP1,JP) - PP(L,K,JP))
                                                                                                                                                                                                                                                                                                                                                                         D(LWGLX) = D(LWGLX) + DL3X(LWGLX) + D_{JRP}X(K_{+J})
D(LWGLX) = D(LWGLX) - DL1X(LWGLX) + D_{JRP}X(K_{+J})
                            DO 46 L = L1<sub>0</sub>L2

IF (\kappa .E0. 1) B(L) = B(L) - B6(L)*DJK11X(\kappa,J)

B(L) = B(L) - B7(L)*DJK10X(\kappa,J)
                                                                                                                                                                                                  (K .LE. KBMXX(J)) GO TO 240
                                                                                                                                                                                                                      IF (J .CT. JLEX(K)) GD TO 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (J off. JCDN) GO TO 245
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                                                                                                                                                                                                                                                                                                                                            - (XUENATIA) =
                                                                    NO 47 L = L1.12
                                                                                                                                         PO 34 L = L1 ,L2
                                                                                                                                                                                DO 33 L = 11,12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LG = LLBLX + 1
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C *** TEPM ?  C *** TEPM ?  C *** TEPM ?  C *** TEPM 3  C *** TEPM 4  ISN 0292  ISN 0292  C *** TERM 4 PH1.ZZ  C *** TERM 5 PH1.ZZ  C *** TERM 5 PH1.ZZ  C *** TERM 6 PH1.ZZ  C *** TERM 7 PH1.Z  C *** TERM 7 PH1.Z  C *** TERM 7 PH1.Z  C ***	TERM 2  B(L) = B(L) + .5*A4*X!CX(J)*VYM#ETARX(K)*C!  D(L) = D(L)25*A4*X!CX(J)*VYM#ETARX(K)*C!  D(L) = D(L)25*A4*X!CX(J)*VYM#ETARX(K)*C!  +FYX(LL.J+!) +ETARX(K)*(PP(L.KP!,JP!,JP!) +2.*FFY(LL.J)  TERM 3  VXBY = .5*X!CX(J)*((PP(L.KP!,JP!) -2.*PP(L.KP!,JP!))  VXBY = .5*X!CX(J)*((PP(L.KP!,JP!) -2.*PP(L.KP!,JP!))  VXBY = .5*X!CX(J)*((PP(L.KP!,JP!) -2.*PP(L.KP!,JP!))  VXBY = .5*X!CX(J)*((PP(L.KP!,JP!) -2.*PP(L.KP!,JP!))  CONTINUE  TERM 4 PH!,ZZ  DO 264 L = LA.LR	ē
	.58A4#X!CX(J)#VYM#ETARX(K)#C1 -258A4#XICX(J)#VYM#ETARX(K)#C1 -258A4#XICX(J)#VYM#ETARX(K)#C1 -1)+ETARX(K)#(PP(L, KP1, JM1) -PP(L, K, JM1) +2.4FYX(L, J) -1)+ETARX(K)#(PP(L, KP1, JM1) -PP(L, K, JM1) +2.4FYX(L, J) -2.4PP(L, K, JM1) -PQLD(L, KM1, JM1) +2.4FYX(L, K -112) #CDE2)	(a) (1 a)
	.58A4&X!CX(J)&VYNM&ETARX(K)&C1 .258A4&XICX(J)&VYNM&CI&(FYX(LL,J-1).82.&FYX(LL,J) 1).+ETARX(K)&(PP(L,KP1,JM1)PP(L,K,JM1).+2.&FPX(LL,J) JP1)PP(L,K,JP1)2.&FP(L,K,JP))) EXTRAPCLATED BOLNDAPY PH1.X (1,+B6(L))&ETARX(K)&(FP(L,KP1,JP)PP(L,K,JP)) VXRY&C1)&FYX(LL,J))*ETACX(K)  A.LR	ê ê
	.25sa4ax1Cx(j)svywaCis(FYX(LL,J-1)+2.aFYX(LL,J) 1)+ETARX(K)*(PP(L,KP1,JM1)-PP(L,K,JM1)+2.aPP(L,K	وَ
	11) + ETARK (K) + (PP(L, KP1, JM1) - PP(L, K, JM1) + 2, + PP(L, K) JP1) - PP(L, K, JP1) - 2, + PP(L, K, JP1) 1)  (J) + ((PP(L, KP1, JP1) - POLD(L, KP1, 112)) + COE1 + (PP(L, K, K, 112)) + COE2 )  EXTRAPOLATED BOUNDARY PH1, X (1, + PB(L)) + ETARK(K) + ETACK(K) ((1, + PB(L)) + ETARK(K) + (PP(L, KP1, JP) - PP(L, K, JP))  VXBY+C1) + FYK(L, J) + ETACK(K)  ZZ A, LP	Ĝ.
	(J) # ((PP (L , KP1 , JP1) - Z , * PP (L , KP1 , 112) ) # CGE 1 + {PP (L , K K	
	(J)*f(PP(L,KP1,JP1)-POLD(L,KP1,112))*CGE1+{PP(L,KK,112)}*CGE1+{PP(L,KK,112)}*CGE2}  EXTRAPOLATED BOLNDARY PH1,X -(1,+86(L))*ETARK(K)*ETACK(K) -(1,+86(L))*ETARK(K)*(PP(L,KP1,JP)-PP(L,K,JP)) -VXBY*CI)*FYX(LL,J))*ETACX(K)  ZZ A*LB	
	(J)*f(PP(L,KP1.JP1)-POLD(L,KP1.112))*COE1+(PP(L,KK.112))*CDE2)  EXTRAPOLATED BOLNDARY PHI.X  (1.*+B6(L))*ETARX(K)*ETACX(K)  ((1.*+B6(L))*ETARX(K)*(PP(L,KP1.JP)-PP(L,K.JP))  VXRY*CI)*FYX(LL,J))*ETACX(K)  ZZ  A*LP	
	EXTRAPOLATED BOUNDARY PHI.X  (1.486(L.)) #ETARX(K.) #ETACX(K.)  (1.486(L.)) #ETARX(K.) #ETACX(K.)  (2.486(L.)) #ETARX(K.) #ETACX(K.)  A.E.B.	
286 CONTI 286 CONTI 286 CONTI 285 CONTI 286 CONTI	EXTRAPOLATED BOUNDARY PHI.X (1.4-86(L.)) #FTARX(K.) #FTACX(K.) ((1.4-86(L.)) #FTARX(K.) #(PP(L.KPI.JP) -PP(L.K.D.)) VXRY#CI) #FYX(LL.J.) #ETACX(K.) ZZ A.LR	CHEN 1395 CHEN 1395 CHEN 1395 CHEN 1399 CHEN 1399 SOL VE306 CHEN 1400
286 CONTI- 286 CONTI- 286 CONTI- 286 CONTI- 285 CONTI- 286 CO	EXTRAPOLATED BOLNDARY PHI.X (1.4-86(L.)) #ETARX(K.) #ETACX(K.) ((1.4-86(L.)) #ETARX(K.) #(PP(L. KP.).JP) -PP(L. K., JP.)) VXBY#CI) #FYX(LL.J.)	CHEN 1395 CHEN 1396 CHEN 1397 CHEN 1398 CHEN 1399 SOL VE306 CHEN 1400
266 CONTI 266 CONTI 264 CONTI 265 CONTI	(1.486(L)) #ETARX(K)#ETACX(K) ((1.486(L))#ETARX(K)#(PP(L,KP1,JP)-PP(L,K,JP)) VXBY#CI)#FYX(LL,J))#ETACX(K) ZZ A,LB	CHEN 1395 CHEN 1396 CHEN 1399 SOL VE206 CHEN 1400
266 CONTI 266 CONTI C ** TERM C ** TERM	((10+B6(L))*ETARX(K)*(PP(L,KP1,JP)-PP(L,K,JP)) VXBY*CI)*FYX(LL,J))*ETACX(K) ZZ A+LR	CHEN 1398 CHEN 1399 SOL VE306 CHEN 1400 CHEN 1401
266 CONT 1 C ** TERM C **	VXBY#CI)#FYX(LL,J)}#ETACX(K) ZZ A,LB	CHEN 1399 SOLVE306 CHEN 1400 CHEN 1401
	ZZ sterricological services and services are services and services are services and services and services and services are services are services and services are services are services are services and services are services are services and services are services are services are services are services are services are	SOLVE306 CHEN1400 CHEN1401
	22 A-LB	CHEN 1401
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2	AALB	CHEN 1402
26 26 27 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		SOLVE307
265 265 27	$O(\Gamma) = O(\Gamma) + O(\Gamma)(\Gamma) + O(\Gamma)(\Gamma) + O(\Gamma)(\Gamma) + O(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma) + O(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)(\Gamma)($	SOLVEJOR
265 265 174 175 175 175 175 175 175 175 175 175 175	P(L+1,K,JP)	SOLVE309
		SOLVESTO
285 GP C C **********************************	60 10 310	SOLVE311
		SOLVERIR
100 50 100 50 10		SOLVESTA
D(LWNGLX) = D(LWNGLX) = D(LWNGUX) = GO TO 200	VORTEX SHEET ****************	SOLVERIS
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GO TO 210	DILWIGLY) + DLOXILWIGLX)*POMPXIK.J)	SOLVESTY
263		CHENIADA
		SOLVE320
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C****** INTERIOR		SOL VE322
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7 = 7 192 00		SOLVESSE CON WESSE
# (2)E		CHENTANA
A(L) =		SOR VE326
LSOLV		SOLVEST
0311 261 D(L) = 0.		SOLVESZR
		SOLVE329
C******* TOP		SOLVE330
311 2002 116		SOLVESSI
		SOLVESSE SOLVESSE
A(L) = 0.		SOLVE334

PAGE

LEVEL	2.2	(SEPT 76) SOLVEX 05/360 FURTRAN H EXTENDED	DATE 77.295/15.27.19
ISN	0315	B(L) = B(L) + D(2X(L) - DRBCUX	SOLVESSS
ISN		CIL	SOLVERRE
ISN		D(T) = D(T) + DT1X(T)*PP(L-1*K.JP) - (DL2X(L) -	DRBCUX )*PP(L,K,JP) SOLVE337
		1 + (DL3X(L) - DRBC(X)*PP(L+1.K.JP) - RBC(X(K.J)	SOLVESSB
			SOLVE339
		Catatata BOTTON	50LVE340
		U	SOLVE341
ISN	0316		SOLVE342
ISN	9110	L = LA - 1	SOLVE343
ISN		A(L) = A(L) - DLIX(L) + DRBCLX	SOLVE344
ISN		B(L) = B(L) + DL2x(L) - DRBCLX	SOLVE345
ISN		C(L) = 0.	SOLVE346
ISN			SOLVESA7
		1 DRBCLX)*PP(L,K,JP) + DL3X(L)*PP(L+1,K,JP) - RBCLX(K,J)	SOLVE348
		0	SOLVE349
ISN	0324	210 CONTINUE	SOLVE350
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201	0334	STORY OF STORY	20CV 103
ISN		5	SOLVE364
T SN		DO 65 L = 11-1	SOR VE365
ISN			SOLVESGE
ISN		8(1)	SOLVE367
NS		0(1) = 0(1)	SOLVE368
ISN		65 CONT INCE	SOLVE369
ISN		99	SOLVESTO
		Compared to the compared to th	SOLVERT
		Ceseses FIRWARD ELIMINATION sessessessessessessessessessesses	******SOLVE372
		U	SOLVE373
ISN	0344	A(2) = 0.	SOLVE374
ISN	0345	B(1) = 0.	SOLVERTS
ISN	0346	0(1) = 0.	SOLVE376
ISN	0347		SOLVE377
ISN	0346	DNOM = 1./(B(1) - A(1)*B(1-1))	SOLVE378
ISN		B(1) = C(1) *DNG	SOLVE379
ISN			SOLVESÃO
ISN	0351		SOLVEJAI
		Cessesse BACKWARD SUBSTITUTION setterterterterterterterterterterterterte	#####SOLVE383
70.	6360	TEM1 = 1M1XX	SOLVENA .
I N	2550	TISMI = LMAXX = 3	SOLVESES
	2000		CONT. TOO

SOL V E 406 SOL V E 407 SOL V E 408 SOL V E 410 SOL V E 411 SOL V E 411 YAWV 15 3 YAW 232 YAW 233 YAW 234 YAW 235 230 SOLVEATS SOLVEATA SOLVEATA ERPPL TO3 CHEN 1407 FRRPLT04 \*\*\* 1 BM AVA AVA YAW C\*\*\*\*\*\* SAVE COARSE MESH ERROR AND RESIDUAL FOR ONLINE PLOT \*\*\*\*\*\*\* IF(.NDT.YAW) GO TO 202 PP(L.2.JP)=PP(L,4,JP) PP(L .5. JP)=PP(L,3, JP) DO 201 L=1.LMAXX 101 = 1df 113 = 112 11 = 15 75 = 113 20 CONTINUE CONTINE 202 CONTINUE 1 JP1 12 = 11 112 201 U v U 0384 0385 0386 0388 0373 0375 0376 0377 0378 0379 0380 0382 0383 0387 0374 0381 ISN 0371 ISN ISN ISN ISN

ERRPLT95 EPRPLT96 EPRP 1. T97

RSDAV = RSDAV/FLOAT(MESH) ERRAV = ERRAV/FLOAT(MESH)

15N 0390

(SEPT 76)

LEVEL 2.2

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EPRPLT98	FPPPLT00	ERRPL100	ERRPLIOI

SELLIAN S	FPPPLT09	ERRPLIO	ERRPL101	ERRPL102	ERRPL103	EPPPL104	EPRPL105	FRRPL106	ERRPLIOT	ERRPLIOR	EPRPL109	EPRPL110	ERRPL111
,	ERRI = CRROR	RS01 = 81GPL	1F ( 17ERC, 67.1) GO TO 800	FRROX = FIROR	ERRL = ALDG10 (ERROX)	CEX = 5.	IF (ERRL.GT.0.) CEX = CEX-AINT(ERRL+1.)	PSDOX = PIGRL	RSDL = ALDG10(RSDOX)	CRX = 5.	IF (RSDL.GT.0.) CRX = CRX-AINT (RSDL+1.)	800 ERRX (ITERC) = CFX+ALCG10 (ERR)	RSDX(TTERC) = CRX+ALOG10(RSD1)
	0392	0393	9660	9650	1950	9650	15N 0399	0401	2000	0403	9000	90 00	1040
	ISN	ISN	NSI	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN

IF (KOUNT .NE. INCRX) GO TO 900 RSDX ( I TERC) = CRX+ALDG10 (RSD1) KOUNT = 0 U ISN 0408 ISN 0410 ISN 0411 ISN 0407

SOLVEA19

ERRPL123 ERRPL124 SOLVEA27 SOLVEAZA

ERRPL112 SOLVEAZO EPRPL113 EPRPL114 EPPPLIIS SOLVEAP SOLVEA23

> WRITE(6.401) ITER.ERRN.ERRAV.JE.KE.LE.BIGRL.RSDAV.JRD.KRD.LRD. NSIJ U ISN 0412

401 FDRMAT(3X,6HCDARSE,2X,14,2X,2(E10,4,2X),3(13,2X),2(E10,4,2X),
1 3(13,2X),16) 900 CONTINUE RETURN END

HOPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOOBL(NONE)

ISN 0414 ISN 0415

ISN 0413

40PTIONS IN EFFECT+SOURCE EBGDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

414 PROGRAM SIZE = SOURCE STATEMENTS = #STATISTICS#

DIAGNOSTICS GENERATED ş \*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

44K BYTES OF CORE NOT INSEN

14122. SUBPROGRAM NAME = SOLVEX

05/360 FORTRAN H EXTENDED

RECKESTED OPTIONS OPT(2) . NOMAP

	000
	FLAGETI
	MEDM
	HOAMSF
	ALC
DIE!	MOXREF
MOBLING	GOS TAT
CHAIN) OPTIMIZE(2) LINECOUNT(56) SIZE(MAX) AUTOOBL(NONE)	RCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOAMSF TERM FLAG(1) DUMP
5) SIZE	MONAP
COUPTE	DBJECT
2) LINE	NODECK
TIMIZE	NOL 1ST
A 1H) OP	EBCDIC
NAME	SOUPCE
N EFFECT	
OPTIONS !	

	L						TO GO SHA
	C CALCALATES PHI	I AT WING SURFACE BY	FACE BY IN	FRPOLATING	INTERPOLATING FROM FINE	MESH	WINGBOW A
	Casasses S/LUTION seasonanessanassanassanassanassanassanas						WAGBOY 6
5000	COMMON / LARGN /	PF (20,30,90)	,	. DJK1(30,90)	100		COMP TX45
	1	DJK2(30,90)		. DJK3(30.90)	106	•	COMF 1X46
	2	DJK4(30,90)		. DJKS(30,90)	600		COMP DX47
	3	DJK6(30,90)		. DJK7(30,90)	606		COMP 1X48
		DJK8(30,90)		. DJK9(30,90)	106		COMP 1X49
		DJK10 (30,90)	•	. DJK11(30,90)	106.		COMF 1X50
₩000	COMMON / LARGX /	PC(20,20,30)	•	. DJK10X(20.30)	0.301	•	COMF DX52
		DJK11X(20,30)	(0)	. DJK1X(20.30)			COMF DYS
15N 0005	COMMON / EXTER /	XIEX(30) .	ETAX(20)	. ZTX(20)	. XINX(30)		EXTER 2
		XIEX(30)	X10X(30)	. XIRX(30)	. ETALX(30)	30)	EXTER 3
	2	ETACX (20) .	ETARX(20)	. XMIMX	. XMAXX	•	EXTER 4
	n	WAXX .	ZMAXX	. WINX	. ZHINX	•	EXTER 5
		Z.W.X	ZWALX	· ZCNTX	. ZWX	•	EXTER 6
		ZPWUX .	ZCWOX				EXTER 7
9000	COMMON / INTER /	. (06) IX	ETA(30)	· ZT(20)	. XIN(90)	•	INTER 2
		XIL(90) .	XIC(90)	. XIR(90)	. ETAL (30)	. 10	INTER 3
	2	ETAC(30) .	ETAR(30)	· COEU	· COEL	•	INTER .
	m	zcw.	מע	· ZRYL	· ZCM	•	INTER :
	•	PDUR(30)	EDUM(30)	. XMIN	. XHAX	•	INTER .
	10	WAX.	ZMAX	. YMIN	. WIN	•	INTER 1
	•	ZLWU .	ZAM				INTER 8
15N 0007	COMMON / INDEXX /	· JMAXX .	KMAXX	. LHAXX	. KTMIX	•	INDEX 2
	•	KT IPX	KTIPIX	. AEX(20)	. JEX(20)	. 10	INDEXT.
	2	LWRGUX .	LIMITELX	. JMAXXI	. KNAXXI	•	INDEXX 4
	3	LMAKX1	KRODTX	. JP1X			INDE XX.
15N 0008	COMMON / INDEX /	JWAX .	KMAX	. LWAX	. KTH1	•	INDEX 2
	The state of the s	KTIP .	KTIPI	. JULE	. RE(30)		INDEX 3
	2	JATE .	JTE (30)	. LWING	. LVINGU	•	INDEX 4
	n	JMAX1	KWAX1	. LMAXI	. KP00T	•	COMF IX 1
	TOTAL STREET,	14					INDEX 6
15N 0009	COMMON / MESHCO /	/ JEX(30,90).	KEX (30)	. LEX(20)	. DXEX(3	.106.0	DXEX(30,90), MESHCD 2
		DYEX(30) .	DZEX(20)	. XINE 303	. JINKIZ	0.301.	JINK (20.30), WESHED 3
	2	LIM(20)	DY IN (30)	. DZ1N(26)	. KINB(20)		WESHOD 4
		DY INB( 20) .	LINE(20)	. DZ INB(20	1 . JINE(20)		WESHO :
	•	JINKM1 (20,30)	101	. KE78(30)	. LEXB(20)	. 10	COMP TX 2
	40	OVEXB(30) .	DZEXB(20)	. JCDN	· ACUP		WESHOO 7
15N 0010	COMMON / XYCOE /	x(30,90)	XIV(30 .90)	. XIX(30)			COMP DY 18
		XIVJ(30,90)		. XX(30)			COMF 1X19
	2	XIX (30,90)					COMF 1X20
15N 0011	COMMON / JUND /	. NZV	AZL	. 8ZU	. BZL	•	JUND 2
			4	· 00FF		•	COMP 1X14
	2	PJUND (30,90)		. PCDEF(30,90)	106.	•	COMP TX15
		* **					

1	ALET WILE WILE WORD WORD WORD WEAN WILE WORD WILE WILE WILE WILE WILE WILE WILE WILE	XET (10) YET (10) SSPAN YET (11) INUX (11) KSMTHS (11) CORD (30) KEACT EACT	xLE1(10)	STRUE	X LOUIS
2 4 6 6 6 6 COMMON / YAWOPT / 1 1 COMMON / FLAGS / 1 1 2 COMMON / FLAGS / 1 1 2 3 4 5 COMMON / FLAGS / 1 1 1 1 1 1 1 1 2 3 4 5 COMMON / FLAGS / 1 1 1 1 1 1 1 1 1 1 1 2 3 4 5 COMMON / FLAGS / 1 1 1 1 1 1 1 1 1 1 1 1 1 1	EEE MAN MAN MAN MAN MAN MAN MAN MAN MAN MAN	MEI(10) YEI(10) YEI(10) SPAN YP(11) INUX(11) KSWTHS(11) CORD(30)	. XLEI(10)	. STRUE	
3 6 6 7 7 8 8 6 6 COMMON / VANOPT / I 1 2 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 5 COMMON / FLAGS / I 1 2 3 4 6 COMMON / FLAGS / I 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ET 111)  WAS T(11)  (180-11)  (180-11)  (180-11)  (180-11)  (12)  (12)  (12)  (12)  (13)  (12)  (13)  (13)  (13)	SSPAN YP(11) INUX(11) KSWTHS(11) CORD(30) RFACT			INPTX
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	MAN	SSPAN YP(11) INUX(11) KSWTHS(11) CORD(30)	. XTE1(10)	· SXPOS	INPTX
6  7  8  6  CDMMON / YAWDPT / I  2  CDMMON / YAWDPT / I  2  CDMMON / FLAGS / I  2  LOGICAL  1  2  LOGICAL  1  2  CD 1 JX = 1.JMAXX  DO 1 JX = 1.JMAXX  CD 150 JX = 1.JMAXX  I PJWMPY(KX.JX) = 0.  CD 150 JX = 1.JMAXX  I PJWMPY(KX.JX) = 0.  CD 150 JX = 1.JMAXX  I PJWMPY(KX.JX) = 0.  CD 150 JX = 1.JMAXX  CD 100 IXX=KLPIN-KLI  IF (YAW) KLPIN-KLAX  DO 100 KX=KLPIN-KLI  IF (JX *LT. JEXIKX)  CD 100 KX=KLPIN-KLI  IF (JX *LT. JEXIKX)	MAN (11) (1180-11) (1180-11) (1180-11) (12) (12) (12) (12) (12) (12) (12) (	TNUX(11) TNUX(11) KSWTHS(11) CORD(30) RFACT	. THICK(11)	. ZWNGWL .	INPTX 10
6  A  B  COMMON / YAWDPT /  1  COMMON / FLAGS /  1  LDGICAL  1  2  2  3  4  5  C  DO 1 JX = 1.JMAXX  DO 1 JX = 1.JMAXX  OO 1 KX = 1.JMAXX  OO 1 SO JX = 1.JMAXX  RLPINEKROOTX  RLPINEKROOTX  RLPOUT=KMAXXI  IF (YAW) KLPINEKSX  IF (JX **LT: JEXIKX  DO 100 KX =*LT: JEXIKX  IF (JX **LT: JEXIKX)  IF (JX **LT: JEXIKX)	1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11) 1180-11)	INUX(11) KSWTHS(11) CORD(30) RFACT	. THETP(11)	. NTWST	ATREOTES.
# # # # # # # # # # # # # # # # # # #	(180.11) E(30) (12) (12) (12) (12) (12) (12) (12) (13) (13)	CORD (30)	. INCX(11)	. XF(180.11)	A IRFOILS
# # # # # # # # # # # # # # # # # # #	EEW(30) 0 (12) 0 (12) 0 (12) 1 (12) 1 (12) 1 (12) 1 (12) 1 (12)	CORD (30)	WOMX .	. XLE(30)	INPTX 21
A B C C D C C C C C C C C C C C C C C C C	E(30) 0(12) 0(12) 70(12) 1PXI V CH X X X X X X X X X X X X X X X X X X X	RFACT	. CORDW(30)	· COPDIN(11).	MING 1
E E E E E E E E E E E E E E E E E E E	0 (12) 0 (12) 10 (12) 10 (12) 10 (12) 11 (12) 12 (13)		. CHEAN	. XTEW(30)	WING 11
E COMMON / YAWDPT /  1 COMMON / FLAGS /  1 2 2 3 4 5 LDGICAL 1 2 3 4 5 C DO 1 JX = 1.JMAXX DO 1 JX = 1.JMAXX CD 1 SO JX = 1.JMAXX RLPINEKROOTX RLPINEKRAXI IF (YAW) KLPOUTEKAX DO 100 KX=KLPINEKLY IF (JX 0.LT. JEXIK) RZ = KINKX)	0(12) 0(12-10) 10(12) 10(12) 10(12) 11(12) 11(12)	- 2	. KX0(12)	. KX1(12)	=
COMMON / YANDPT / 1  COMMON / YANDPT / 1  COMMON / FLAGS / 1  LOGICAL  LOGICAL  LOGICAL  DO 1 JX = 1, JMAXX  DO 1 JX = 1, JMAXX  NALPINERROOTX  RALPINERROOTX  RALPOUT=KMAXX I  IF (YAN) KLPOUT=KAX  OO 100 KX=KLPIN+KLY  IF (YAN) KLPOUT=KAX  OO 100 KX=KLPIN+KLY  IF (YAN) KLPOUT=KAX	70 12 10 10 12 10 10 10 10 10 10 10 10 10 10 10 10 10	NXIC121	. YX0(12-10)		ATREOTES
E 6 GOMMON / YANGPT / 1 1 2 COMMON / FLAGS / 1 3 4 5 LOGICAL 1 2 3 4 5 C DO 1 JX = 1.JMAXX DO 1 JMAXX DO 100 KX=KLPIN+KLY DO 100 KX=KLPIN+KLY DO 100 KX=KLPIN+KLY DE 1 JX - LT. JEXIKX	10(12) 10(12) 10(12) 11(12)	XX1112-10)	DXPO(12)		ATPENTED
COMMON / YAWOPT / 1  2  COMMON / FLAGS / 1  2  3  4  5  LOGICAL  1  2  3  4  5  C  DO 1 JX = 1.JMAXX  DO 1 JX = 1.JMAXX  DO 1 JX = 1.JMAXX  MLP INERGOOTY  KLP INERGOOTY  FF (YAW) KLP INERGY  DO 100 KX=KLP INERGY  DO 100 KX=KLP INERGY  FF (YAW) KLP INERGY  FF (YAW) KL	1	DXT1(12)	N PHM	MIPS F	ATRENT
	H ××××××××××××××××××××××××××××××××××××	X FWX (30)	XTEWX(30)	· CORDX	CHORD
	£ × × × × × × × × × × × × × × × × × × ×	XOR	. XLFWP(30)	. XTEWP (30)	VSCF X3
9	****				VSCFXB
- " g - " " 4 " 8 8 5 8 9 9 7 7 8 7 8	× × × × ×	K2X	. K3X	. K4X	COMF TX87
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	× 82 :	Kex	. K7X	. K8X	COMF 1X88
6 1 4 4 8 3 1 4 4 8 8 5 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ISK	KMIX			COMP TXP
		TSAVE	TOTAL.	- MCHINT	F1 165
, , , , , , , , , , , , , , , , , , ,		TOOL	PACPOT	POON	FIAGS
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2 2 - 4 - 4 - 8 8 <u>5</u> 8 <del>5</del> 5 <u>5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 </u>	MODIN	AXISAM	. AREA	· IBLOUT	INPTX
	IDISK	ISAVE	. IPLOT	. MSHINT	COMP "X
~ ~ ~ 88 <u>1</u> 899 <u>7</u> 7873		MACDRI	BBCPRT	· BODA	COMPETX
^ 88 <u>5</u> 899 <u>F</u> F8F8		ISPAN	. IF IND	. ICRUDR	COMPIX
^ 885g899££8F8	EXTUSH	REMESH	. IMAPP	· YAW	COMP TX
^ 88 <u>5</u> 899£ <u>F</u> 8F8	BUMP	IVISC	. ITNIST	· IFOILT	COMF IX
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		WNCH CAN
	O DIE WEST DI	WNGBDY35
	COADSE MESH	MACBOVA
		2000
		WNGBDY37
	C Y(K)	WNGB DV38
	(F) X (F)	WNGB DY 39
	•	WNGRDYAO
		WNGBDY41
		WNGBDY#2
	C 1 (J1.K1) +	WNGB DY 43
	C 7 + (J3.K2)	WNGBDYAA
		WNGBDYAS
	C 3 + (JX*KX)	WNGB DY &6
		WNGB DY & 7
	C I (J2,K1) +	WNGBOYAB
	-	WNGBDYA9
	C 1 + (J4•K2)	WNGBDV50
	•	WNGBDY51
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		***WNGBDY53
	U	WNGB DY 54
15N 0036	$DXI = (XX(JX) - X(KI_0J1))/(X(KI_0J2) - X(KI_0J1))$	WNGBDYSS
ISN 0037	$DX2 = (XX(JX) - X(K2_aJ3))/(X(K2_aJ4) - X(K2_aJ3))$	WNGBOYS6
		WNGBDY57
	Cossesse INTERPOLATION secessessessessessessessessessessesses	**
	U	
96 00	(JX .GT. JTEX(KX)) GO	WNGROY60
0040	IF (KX oGT KTMIX) GO TO 55	WNGB DY 61
0045	= LWNGLX	WNGB DY62
0043	DO 50 KOLNT = 1.2	WNGB DY 63
**00	L2 = LIN(UX)	WNGBDV64
0045	11 = 12 - 1	WNGBDV65
9400	DZ = DZIN(LX)	WNGB DY 66
0047	PC(LX,KX,JX) = PCINT(J1,J2,J3,J4,K1,K2,L1,L2,DX1,DX2,DY,DZ)	WNGBDY67
9400	LX = LMMGUX	WNGB DV 68
6400	50 CONTINUE	WNGB DY 69
ISN 0050		WNGB DY70
ISN 0051	55 CONTINUE	WNGRDY71
	JF (JX -LT- JTEX(KX)) 60 TO 100	WNGBDY72
ISN 0054	IF(YAW) PJUMPK(KX.JX)=PJUMP(K3X.JMAX)	YAW 243
ISM 0056	PF(YAW) GO TO 100	
	FI = PLUMP(KI.1) + (PLUMP(KI.1) - PLUMP(KI.1)*	-
	F3 = PJUMP(K2.33) + (PJUMP(K2.34) - PJUMP(K2.33)*PX2	WNGB DY 74
		WNGROY75
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MOPTIONS IN EFFECT#SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

SOURCE STATEMENTS = \*STATISTICS\*

1366. SUBPROGRAM NAME = WNGRITY 63. PROGRAM SIZE =

05/360 FORTRAN H EXTENDED

WEBDY

LEVEL 2.2 (SEPT 76)

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

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146

LEVEL 2.2 (SEPT 76)

REQUESTED OPTIONS OPT(2) . NOMAP

NAME(MAIN) OPTIMIZE(2) LINECOUNT(S) SIZE(MAX) AUTOBEL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP OPTIONS IN EFFECT

PCINT 2	. COMF TX .	. COMFTX46	. COMF 1X47	. COMF TX48	. COMFIX49	COMF 1X50	PCINT 4	PCINT S	PCINT 6	PCINT 7	PCINT 8	PCINT 9	PCINT FO	PCINT 11	PCINT 12
1.L2.DX1.DX2.DV.DZ)	. DJK1 (30,90)	. PJK3(30,90)	. DJK5(30,90)	. DJK7(30,90)	. DJK9 (30,90)	. DJK11(30,90)	- PF(L1,K1,J1))*0X1	- PF(L2,K1,J1))*DX1	- PF(L1,K2,J3))*DX2	- PF (L2. K2. J3) ) + DX2					
FUNCTION PCINT(J1.J2.J3.J4.K1.K2.L1.L2.DX1.DX2.DV.DZ)	COMMON / LARGN / PF(20,30,90)	DJK2(30,90)	DJK4(30,90)	DJK6(30,90)	DJK8130,901	DJK10 (30,90)	F1 = PF(L1.K1.J1) + (PF(L1.K1.J2) - PF(L1.K1.J1))*DX1	F2 = PF(L2,K1,J1) + (PF(L2,K1,J2) - PF(L2,K1,J1))*0X1	F3 = PF(L1,K2,J3) + (PF(L1,K2,J4) - PF(L1,K2,J3))*DX2	F4 = PF(L2.K2.J3) + (PF(L2.K2.J4) - PF(L2.K2.J3))*DX2	3 - F11*DY	1 - F21+OV	(F6 - F5) #07		
FUNCTION PCIN	COMMON / LARG	-	N	9	•	ıs	FI = PF(LI.KI	F2 = PF(L2.K)	F3 = PF(L1,K2	F4 = PF(L2.K2	F5 = F1 + (F3 - F1)*DY	F6 = F2 + (F4 - F2)+OY	PCINT = F5 + (F6 - F5) #02	PETURN	END
2000	0000							1SN 0005	170	2000	16.3	200			

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOMECK ORJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

11. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

164K BYTES OF COPE NOT USED

640. SUBPROGRAM NAME = PCINT

REQUESTED OPTIONS OPT(2), NOMAP

	URCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTWT NOXREF ALC NOANSF TERM FLAG(1) DUMF
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												800	BODBOY	0
	COMMON / LARGN /	-	ARGN	-	PF (20,30,90)	8			DJK1 (30.90)	-	•	O	COMF IX4	
	-				DJK2(30,90)	60			DJK3(30 . 90)	-	•	C	COMP 1X46	•
	~				DJK4(30,90)	60			DJK5(30.90)	-	•	00	COMF IX47	
	3				DJK6 (30,90)	60			DJK7(30,90)	-	•	000	COMF IXA	8
	•				DJK8 (30,90)	10			DJK9(30.90)	-	•	00	COMF 1X49	6
	S				DJK10(30,90)	600			DJK11(30,90)	0		CO	COMF 1X50	0
	COMMON / LARGX	-	ARGX	•	PC(20,20,30)	30)			DJK10X(20,30)	30	•	00	COMF IX52	2
	1				DJK11X(20,30)	.30	•		DJK1X(20,30)	6		CO	COMF 1X53	
	COMMON / BODY!	-	MOON	-	XMUSE		XTAIL		NB IN (2)		XBIN(2,35)	900V	>	~
					NRODS		JAUP(2)		JBDN(2)		JNOSE	V 900 4	>	
	N				JTATL		ALPHAB		NBPTS(90)		R(90)	· BODV	>	
	3				KRWX(90)	•	LMN	•	LMX		AFK(15)	. B00v	>	5
	•				BFK(15)	•	CFK(15)	•	AFL(15)		BFL(15)	· BODV	>	9
	6				GFL(15)		ABL (15)	•	BBL(15)		GBL(15)	. BODV	>	
	9				ACL(2)	•	BCL(2)		ככרוג)		BIYPE	. BODV	>	
					XRBU(90)		XRBL (90)		DZRBU(90)		DZRBL(90)	CHENI		
	8				NREU		NRBL		YRB		ZRBU	BUDY	1 >	0
	6				ZRPL	•	KRMXX(30)	•	JNOSEX		JTAILX .	· BODV	1 1	
	<				RB IN (2,35)	.:	XNOSEX	•	XTAILX		YOB	FIX	FIXCYA	
	COMMON / BODV2	-	SODV2	•	FX(30,90)		FY (30,90)	•	FZ (30,90)			CO.	COMF 1X23	•
	-				KROD (30.90)	10			LBU(20.90).		LBD (20.90)	000 .	COMF 1X24	4
	2				NBPT SX (30).		LB00(30.90)					CO	COMP TX25	10
	n				LBUX (20,30)	60			LBDX (20 .30)	•		NOO.	COMF 1X26	9
					FYX(20,30).		CPS(20,90)					CO	COMF 1X27	
	COMMON / BODV3	1	SODAS	-	KBMAX	•	KHMAXX		ררפר		LLBU ,	4 B00V	V 18	80
	1				LLBLX	•	LLBUX		RBCU (30.90)	•		COM	COMF 1X29	0
	2				KBS		PBCL (30.90)	•				000	COMF 1X30	0
	3				RBCUX (20,30)	30 )			RBCLX(20,30)	0		100	COMF IX31	
					DRECU		DRBCL	•	DRBCUX		DRBCLX ,	COM.	COMF 1X32	N
	2				SALPH(90)	•	SALPHX (30)	_				CO	COMF IX33	
	COMMON / BODYBC	1	PODYB	10	1800		IBLD		IBSIDE		ETABU(10)	NOO.	COMF IX34	
	-				ETABL(10)		ZB00(20)	•	NRBS		XRBS(100)	000	COMF IX35	5
	COMMON /	-	EXTER	-	XIEX(30)		ETAX(20)		ZTX(20)		VINX(30)	. EXTER	ER	N
	-				X1LX(30)		XICX(30)		X1RX(30)		ETALX(30)	EXTER.	ER	•
	2				ETACX (20)		ETARX(20)		XMINX		XMAXX .	EXTER.	ER	
	3				YMAXX		ZMAXX		YMINX		. XNI MZ	EXTER	ER	50
					ZLWLX		ZRVLX		ZCVLX		Z VUX	. EXTER	ER	9
	9				ZRWJX		ZCVUX					EXTER	ER	
	COMMON / INTER	-	INTER	•	(06) IX		ETA(30)		27 (20)		. (06)NIX	INTER	ER	2
	-				XIL(90)		XIC(90)		X1R(90)		ETAL (30)	INTER	ER	•
	~				ETAC(30)		ETAR( 30)		COEU		coer .	INTER	ER	
	3				ZCAO		מער	•	ZRVL		zcvr ,	INTER	ER	
					POLIMICA		EDIMIT 301						-	
							The state of the s	•	MIN		XMAX .	INTER	ER	c

		•			24.80	•	ZRVU						INTER	
ISN	ISN 0011	8	MMCIN	COMMON / INDEX /		•	KMAX	•	LMAX		KTMI	•	PNDEX	N
		•					KTIPI	•	JWLE		A.E (30)		INDEX	
		N			SWIE	•	JTE (30)	•	LWING		LWINGU		PNDEX	•
		•			MAXI	•	KMAX1	•	LMAX1		KROOT		COMF 1X	
		A. ADDAM AFTER STORY			192						Mary Mary		INDEX	9
ISN	15N 0012	8	COMMON /	INDEXX	/ SMAXX	•	KMAXX	•	LMAXX		KTM1X	•	INDE XX	~
		THE PARTY OF THE PARTY OF			KTIPX	•	KTIPIX	•	A.FX(20)		STEX(20)		PNDEXX	
		8			LWNGUX	*	LWNGLX	•	JMAXX1		KMAKKI		INDE XX	
					LMAXXI		KROOTX	•	XI de				PHOEXX	
ISN	ISN 0013	8	COMMON	/ WESHCO	/ JEX(3	JEX(30,90).	KEX (30)	•	LEX(20)		DKEX (30.90) . MESHCO	. 10	MESHOD	•
		日の日の日本の日の日の日日日日日日日日日日日日日日日日日日日日日日日日日日	THE PERSON		DYEX (30)	30)	DZEX (20	•	KIN(30)		JINK (20,30), MESHOD	0	MESHOO	
		N			LIN(20)	. 10.	DY INC30	•	DZ IN (20)		KINB(20)	•	WESHOD	
		CHALL CONTROL			DY INB(20)	1(20)	LINB(20)		DZ INB(20)		JINB(20)	•	. MESHOD	2
		•			JINKH	JINKH1 (20,30)	10.	•	KEXB(30)		LEXB(20)		COMFIX	~
		•			DYEXB(30)	(30)	DZEXB(20)	. (6	JCDN		JCOP		MESHOD	
ISN	15N 0014	8	COMMON /	/ XVCDE /	(06°0E)X	. (06	XIY(30,90)	. (00	X1X(30)				COMPEXE	•
		W. 1940 C.			XIYJC	XIVJ(30.90)		•	XX(30)				COMF TX19	•
		2			XINK	XIVK (30,90)						Ī	COMF 1X20	•
ISN	00 15	8	COMMON /	, SUMP /	AZV	•	AZL	•	028		BZL		SIMP	~
		-			CZA		כע	•	COFF				COMP TX1	
		2			PJUMP	PJUMP (30,90)		•	PCDEF (30,90)	106			COMP TX1	•
		m			KPIND	KP INDX (30,90)	(0)	•	PJUMPX (20,30)	.30		Ī	COMF TX16	•
		v										_	BODBOYTE	9
		C******		ITTE RECT	ANGULAR	BODY	WITH STR	A IGH	INFINITE RECTANGULAR BODY WITH STRAIGHT SIDES *****	*	********	***	BODBOY17	
		v										-	RODBOYIA	•
ISN	00 16	3	= LLBLX	LX + 1								-	BOOBDYIG	•
ISN		9	"	WX - 1									BODROYZO	•
ISN	9100	JXI	1 = JCUP	1 + 47									BOOBOYZI	
ISN		JXS	2 = 5	JCDN - 1									BOORDYZZ	•
ISN		8	150 J	DO 150 JX = JX1.JX2	SX2								BODBOY23	
 ISN		35	NIS "	JINK(1.JX)									BOOB DY 24	
ISN		5	u										RODROVZE	
ISN		XO	"	(5(1)X)/(((-1)X - (X()XX)	(11.31)	/(x(11.	((16.11)) - (St						RODROVZE	•
ISN		8	50	50 KX = 1 KROOTX	OTX	THE PARTY			STATE OF STATE OF				RODROVZZ	
ISN		K2		= KINB(KX)									RODRINZE	•
ISN		2		K2 - 1									BODE DY 29	. 0
ISN		*		= DYTABEKX)									BOORING	
ISN		1		(KX .LT.KROOTX) GO TO	x) G0 T	11 0							ROBOVE	
		U											BODBOY32	
		Cesssan	STOE										80080Y33	
		v											BOOBOV34	
		U										-	B00B0V35	
		C******		ING L-IN	DEX HER	E FOR	USE WING L-INDEX HERE FOR INTERPOLATION	TION					RODROY36	9
		v										-	BROBENS	
		C******		PS UP SI	DE OF B	ODY. E	XCLUDES .	LUD A	1. LOOPS UP SIDE OF BODY. EXCLUDES TOP AND BOTTOM			-	BUGS	
		U										_	BODBOY39	0
ISN		2		( = LA,LB								-	BODB DY4	0
ISN		2	"	(CX)								_	BODRINA	-
ISN		3		1-2-1								-	BOOBOY42	2
ISK		20	120 =	= DZIN(FX)								-	RODBOY43	
ISN			(LX.KX	( X ) = P	CINT	.32.31	. J2 .K1 .K.	2061	PC(LX,KX,JX) = PCINT(J1,J2,J1,J2,K1,K2,L1,L2,DX,DX,DY,DZ)	7.	121		800 BOY44	
ISN	0032	20 CO	CONT INCE										8008DY45	

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PAGE
DATE 77.295/15.29.06
                                         BODRINAB
                                                    BODB DY 49
                                                             BOORDVSO
                                                                                                                           RODBOYS6
                                                                                                                                     800BDYS7
                                                                                                                                               BOORDVSB
                                                                                                                                                          BOOBOYS9
                                                                                                                                                                     BODBOY60
                                                                                                                                                                                         BOORINGS
                                                                                                                                                                                                   BOOHDY63
                                                                                                                                                                                                             RODBOY64
                                                                                                                                                                                                                        BODBOY65
                                                                                                                                                                                                                                  BODBOY66
                                                                                                                                                                                                                                             ACCIONO767
                                                                                                                                                                                                                                                      ROORDVAR
                                                                                                                                                                                                                                                                 BODBOY69
                              RODB DY 47
                                                                                  BOORDWS2
                                                                                            BODBOYSS
                                                                                                      BODB DYS4
                                                                                                                BODBOYSS
                                                                                                                                                                               BOORDVA
                                                                                                                                                                                                                                                                            RODBOY70
                                                                                                                                                                                                                                                                                                BOOR DY 72
                                                                        BOORDYSI
                                                                                                                                                                                                                                                                                      BODROY7
                                                                                                                                                                                                                                                                                 PC((LLBIX,KX,JX) = PCINT(J1,J2,J1,J2,K1,K2,L1,L2,DX,DX,DX)
                                                                                                                                                                                                                                             PC(LLBLX, KK, JX) = PCINT(J1, J2, J1, J2, K1, K2, L1, L2, DX, DX, DY, DZ)
05/360 FORTRAN H EXTENDED
                                                                                                                                               DZ = DZINB(LLRUX)
                                                                                                                                                                                                                        LI = L2 - 1
DZ = DZINB(LLBLX)
                                                                                   10 PC(LX.KX.JX) = 0.
                                                                        00 10 LX = LA,LB
                                                                                                                            L2 = LINR(LLBUX)
                                                                                                                                                                                                             LZ = LINB(LLBLX)
HODBOY
                                                                                                                                      L1 = L2 - 1
                                                                                                                                                                                                                       = 12 - 1
                                          C****** INTERIOR
                                                                                                                                                                               Cassess BOTTOM
                                                              11 CONTINE
                     GO TO 50
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                                                                                                                                                                                                                                                                 150 CONTINUE
                                                                                                    C****** TOP
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LEVEL 2.2 (SEPT 76)
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ADPTIONS IN EFFECT#SOURCE EHCDIC NOLIST NOBECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) BUMP

64. PROGRAM SIZE

DIAGNOSTICS GENERATED 2 #STATISTICS#

SOURCE STATEMENTS

STATISTICS

\*\*\*\*\* END OF COMPILATION \*\*\*\*

148K BYTES OF CORE NOT USED

1478. SUBPROGRAM NAME =BODBOY

BODR DY 76

RODROYPE BOOR DY74 BODBONTS RODROYTY RODBOY79

BOORDYZE

RODROYAG BODBOVE BODROYEZ BODBOVES BOORDYRA

FI = PJUMP(KI,JI) + (PJUMP(KI,J2) - PJUMP(KI,JI))\*DX F3 = PJUMP(K2,JI) + (PJUMP(K2,J2) - PJUMP(K2,JI))\*DX PJUMPX(KROOTX,JX) = F1 + (F3 - F1)\*DY

= (XX(JX) - X(1,J1))/(X(1,J2) - X(1,J1))

= 32 - 1

SSEE

0900 2900 00063

(JX .LF. JTEX(KROOTX)) GD TO 200

200 JX = 1. JMAXXI = JINK (KROOTX.JX)

= DYINBIKROOTX)

0053 9500 9500 1500 9500 6500 0061

= KINB (KROOTX)

K2 288

0051

= K2 - 1

RODROYRE

REQUESTED OPTIONS OPT(2), NOMAP

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MAIN) DPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)	E EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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v										GCALC
C****	******INTERPOLATE	ERPOLATE	GAMMA. PUT	1	T INTO 2-	MIC	ENSTONAL	A RR	IT INTO 2-DIMENSIONAL ARRAY PJUMP. **	*GCALC
u	,	,	-						196 677100	GCALC
	CUMMUN / BODY!	PODAT	ANIESE		ALMIL.		TO NI ON		TOCE TO THE	200
	The second second		SCHOOL		Contract of the contract of th	•	1 STAGE		- 2000	2000
	v 1		JINIE		ALPHAB	•	TONIS HON			1000
	3		KHWX ( 80 )	•	NW	•	LMX			ACCH
	•		BFK(15)	•	GK(15)	•	AFL(15)		H-L(15) .	RODA
	S		GEL(15)	•	ABL (15)	•	BBL( 15)		CBL(15) .	RODV
	•		ACL(2)	•	BCL(2)	•	CCL(2)	•	BTYPE .	800
	1		XRRU(90)	•	XRBL (90)		DZRBU(90)		DZRBL(90) .	CHEN 1
	8		NREEU		NRBL		YRB		ZRBU .	<b>800</b>
	•		ZRRE		KBMXX (30)		SNOSEX		STAILX .	BUDV
	~		RB IN (2,35)		XNOSEX		XTAILX		YOR	FIXCYA
	COMMON / BODVE	BODY2 /	FX (30,90)	•	FY (30,90)	•	FZ (30,90)		•	COMF 1X23
			KBOD (30.90)	0		•	LBU(20,90).		LBD(20.90).	COMF 1X24
	~		NBPTSX (30).	:	LB00 (30.90)	6				COMF 1X25
			LBUX (20.30)	0		•	LBDX (20 + 30)			COMF 1X26
	4		FYX(20.30)		CPS (20.90	-				COMF TX27
	COMMON / BODY3	BODV3 /	KBMAX		KBMAXX	•	1181		LLBU .	800V P8
			× 2		I BITX		PRC1130-90)			COME 1X20
			KRS		BBC (30.90)	6				COMF 1X30
	, ,		PROLIXI 20. TO	- 02			PACE X120-301	100		COME 1x21
	A TALESTON CONTRACTOR		Dog.	3	Dogu		DBBCIN		NOBC! Y	COMERNAS
			SAFDUION	•	CAT DUY (30		word w			COME TYRE
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	•		TOT TOWN	•	CD001501	•	201		1001100	1
J										CLAL
	COMMON / INTER	INTER	( 06) IX	•	ETA(30)	•	(1 (50)		. (06)NIX	INTER
	1 30 1 20		XII. (90)	•	XIC(00)	•	X1R(90)	•	ETAL (30) .	INTER
	~		FTAC (30)	•	ETAR (30)	•	COEU	•	COEL .	INTER
	m		ZCW	•	74	•	ZRVL		zcw.	INTER
	•		PDUM(30)	•	EDUM(30)		XMIN	•	XMAX .	INTER
	S		YMAX		ZMAX	•	YMIN		. NIMZ	INTER
	9		ZW	•	ZRVU					INTER
	COMMON / FLAGS	FLAGS /	IDISK	•	ISAVE	•	IPI.OT		WSHINT .	FLAGS
			SOLV		WBCPRT	•	BBCPRT		BODY .	FLAGS
	~		FCP		TSPAN		1F INR		ICRUDR .	INPTX
	m		EXTMSH		REMESH		IMAPR		YAW	TONE
	•		10.00		TVICE	• 1	TAILET		15011	TADAT
			1000	•	TA ISC	•	101411			
	•		NICOSI	•	AXISYM	•	AREA		BEOOF	XIONI
	LOG I CAL		IDISK	•	ISAVE	•	1PLOT		MSHINT .	COMF 1X
	1		SOLV		WBCPRT		BBCPRT		BODY .	COMF 1X
	2		FCR	•	ISPAN	•	IFINE		ICRUDR .	COMP 1X
	3		EXTMSH	•	REMESH	•	IMAPR		YAW .	COMP 1X
	•		BUMP	•	IVISO		ITWIST		IFOILT .	COMPLX

1	LEVEL	2.2 (	(SEPT 76)	GCALC DS/360 FORTRAN H EXTENDED	DATE 77.295/15.29.21
	ISN	9400		60 TO 19	
			U		
	ISN	6400	20	RJS=R(J)**2	
		0000		DO 9 K=KROOT.KTIP	
	ISN	1500	•	ENEW (K)=SQRT(FACT(K)+RJS)	GCALC 60
			U		GCALC 61
	ISN	0052	19		GCALC 62
		0053		IFIRSANE) GO TO 16	GCALC 63
		9900		2	GCALC 64
	ISN	0057		FFETAKN .LT.ENEW(KRODT) .OR.ETAKN) .GE.ENEW(KTIP)) GO TO 18	GCALC 65
			U		GCALC 66
	ISN	6500			GCALC 67
	ISN	0900		FF(ENEW(KK+1).LE.ETA(K)) GO TO ?	GCALC KR
		0062		KPINDX(K.J)=KK	
		0063		PCOEF(K.J)=(ETA(K)-ENEW(KK))/(ENEW(KK+1)-FNEW(KK))	
	ISN	1900		GO TO 11	
	ISN	9900		CONT TIME	
	ISN	9900			
	ISN	1900	711	FURMATIONATH ERROR IN GCALC. BAD INDUT DATA. KE. 15.55. SHKKE.	
				1 IS-5X-2HJ=-15)	
	ISN	9900	,	STOP	
			١,		
		6000	2	Z-=(California) =-C	
	22	2	,		GCALC 79
	200		, :		SCALC BU
		200	9:		
		2200	:,		GCALC 82
	IN	67.00	,	PETI INC.	SCALC BS
					SCAL C #5
			****	passant CODE = 2 . EVALUATE PJUMP . * **************************	
			U		GCALC 87
15	ISN	0075		2 CONT INCE	GCALC RB
3	ISN	9200		IF ( RODV-AND-BTYPE-NF-1 ) GO TO 32	GCALC 89
	ISN	84.00		KLP1N=1	VSCFX5 2
	ISN	64.00		KLPOUT=KMAX	VSCFX5 3
		0800		IF(YAW)KLPIN=3	
		0085		IF(YAW)KLPOUT=4	VSCFX5 5
		0084		DO 33 J ≈ 1.JMAX	GCALC 90
		900			VSCF X5 6
		9800		33 PUMP(K.J) = DUNEW(K)	GCALC 92
	ISN	1800			GCALC 93
	ISK	9800	2		GCALC 94
	ISM	6800	,	PAREW(KTIP) = 0.	GCALC •5
	ISN	0600	,	DO 12 JE1 9 JMAX	GCALC 97
		1600			
			U		GCALC 99
	ISN	2600		DO 12 K=1 sKMAX	GCAL C100
		6600	•	KK=KPINDX(K, J)	GCALC101
		****	,	20 21 00 10 10 101	GCALCIUZ
	ISN	9600		5	GCALCIUS GCALCIU4

DATE 77.295/15.29.21	GCALC105	GCAL C106	6CALC107	GCALCIOR	GCAL CI09	6CALC110	GCALC111	GCALC112	GCALCI13	GCALC114	GCALC115	GCALCI16	GCALC117	GCALCITA	GCALC119	GCALC120
DS/360 FORTRAN H EXTENDED											PJUMP(K.J)=PJNEW(KK)+PCOEF(K.J)+(PJNEW(KK+1)-PJNEW(KK))					
092/30											OEF (K.)					
GCALC			F(KK.GT1) GO TO 14	=P JNEW(K)			1F(KK-GT-0) GO TO 15	0.0=			=P JNEW (KK) +PC					
3	GO TO 12		IF (KK.GT	PJUMP(K.J)=PJNEW(K)	GO TO 12		IF (KK.GT.0	PJUMP(K.3)=0.0	GO TO 12		JUMP(K.J):		CONT INCE		RETURN	END
92	٠		-	•	•		-	•	•		-		•		-	-
(SEPT		U	13			v	-			v	15	U	12	v		
2.2	1600		8600	0100	1010		2010	1010	3105		9010		1010		9010	9100
LEWEL 2.2 (SEPT 76)	ISN			ISN				ISN			ISN		ISN		ISN	

\*OPTIONS IN EFFECT\*NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE)

MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 2280. SUBPROGRAM NAME = GCALC 108. PPOGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

144K BYTES OF CORE NOT USED

REGUESTED OPTIONS OPT(2), NOMAP

	EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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COMMON LARGN PETER PLANE ************************************	15N 0002		SUBROUTINE DBNDY									DRNDY	
COMMON / LARGN / PF(20,30,90)   DJK5(30,90)   DK5(30,90)   DK5(30												DANDA	
COMMON / LARGN / PF120.30.90)		****		PLANE ***		****	*	****	*		*	A GNEO	
1				PF 120.30.	606			33 (30 · 0)	(0			COMP IXE	
2 DJK6(30,90) DJK7(30,90) DJK7(30) DJK7(30,90) DJK7(30				DJK2(30.9	60			9.0E) SYFC	6			COMF IXA	
3 DAK6 (30, 90) DAK9 (30, 90) CAL (30, 90) COMMIN INTER / X1 (90) TTAL(30) COEU COEU COEL COEU COEU COEL COEU COEU COEU COEU COEU COEU COEU COEU		2		DJK4 (30.9	60			9.0E)SXFC	10			COMF IX4	
4 DUKRR (30,90)		3		DJK6 (30 +9	(0			9.0E) TXLC	6			COMF 1X4	100
5 DWEIGTON - TATER - XTICON - TATEON -		The same of		DJK8(30.9	60			9.0E) 6XFC	60			COMF 1X&	•
COMMON / INTER / XI(90) - ETA(30) - XTR(20) - XTR(90) - TAL(30) -		S		DJK10 (30.	106			JJK11(30.	106			COMF TXS	
The control of the	40	COMMON ,		X1 (90)	. E	TA(30)		27(20)		KIN( 90)	•	INTER	0
2 ETAC (30) - ETAR (30) - COEU - COEL - COEL - COEL - COURT - COUNT -		The state of the state of		XIL(90)	. x	(06)3		KIR(90)		ETAL (30)	•	INTER	
2 CWI		2		ETAC(30)	· ET	TAR (30)		COEU		COEL	•	INTER	_
4 POLME(30) - EDUM(30) - XHIN - XMAX - XMAX - ZLVU - ZMAX - YMAX - YMAX - YMAX - YMIN - ZHIN - ZHIN - ZLVU - ZLVU - ZLVU - ZLVU - ZLVI - ZLE(30) - LMAX - YMIN - ZHIN - ZLE(30) - LMAX - LMAX - LMAX - LLE(30) - LWINGL - LWINGU - L		3		ZCWI	. 7	*		ZRVI.		ZCM	•	INTER	
5 YMAX		•		PDUM(30)		(0E)M(10		KMIN		XMAX	•	INTER	
COMMON   INDEX   MAX   MAX   MAX		2		WAX	. 4	IAX		MIN		NIMZ	•	INTER	
COMMON / INDEX / JMAX		9		ZLW	. 7	3						INTER	-
1 MAX1	90	COMMON	INDEX	SMAX	· K	AX		MAX		KT M1	•	INDEX	•
2 JWTE - JTE(30) - LWINGL - LWINGU - LWINGU - JMAX1 - KMAX1 - LWAX1 - KROOT - JMAX1 - KMAX1 - LWAX1 - KROOT - JMAX1 - LWAX1 - KROOT - JMAX1 - LWAX1 - KROOT - JWTEST - RTESTX - RSUB - R		•		KTIP	· KT	191		MLE		JE(30)	•	INDEX	-
3 JMAX1		2		SWTE	5 .	E(30)		MING		LWINGU	•	INDEX	_
4 LDM NELAXP / MAXIT		3		JMAX1	· KR	1AX1		LMAXI	•	KROOT	•	COMFIX	_
COMMON / RELAXP / MAXIT		The state of the s		192								INDEX	
1	90	COMMON	RELAXP	100		NTIX		WAXITX		INCR	•	RELAXP :	
## RSUBX		1		INCRX	. 81	FEST		RTESTX		RSUB	•	RELAXP :	
3 WIX BY NED WIX BY NED WIX WIX BY NED WIX B		۸:		PSURX	. 88	S103(30)		Sps		EPSEX	•	RELAXP !	
4 LRn		3		NI IN	. W.	×		JRD	•	KRD	•	RELAXP !	
5 LE GREDR GRONT GROP GROP GROP GROP GROP GROP GROP GROP		•		LPD	. 81	IGPL		JE JE	•	KE	•	RELA XD	
6 COMMON / JUMP / AZU , AZL , BZU , BZL , BZL , COFE		2		LE	. ER	ROR		KDUNT		NSUP	•	PEME SH	
COMMON / JUMP / AZU , AZL , BZU , BZL , BZL , COFF , COFF , CZU , CZL , CDF , CDF , CZU , CZL , CDF , CDF , CJUMP(30,90) , PCIGF(30,90) , PCIGF(30,90) , PCIGF(30,90) , PCIGF(30,90) , PCIGF(30,90) , PCIGF(30,90) , PCIGF(30)		9		IPASS								REMESH !	
1 CZU CZL CCFF 2 PJUMP(30,90) PCDEF(30,90) 3 KPINDX(30,90) PLI(90) PLI(90) 1 COMMON / LCO / DE1(90) DH2(90) PLI(90) PLI(90) PLI(90) 2 COMMON / LCO X DE1X(30) PEZX(30) PLI(90) PLI(90) 1 DH2X(30) PEZX(30) PLIX(30) PLIX(30) PLIX(30) 2 COMMON / XYCDE / X(30,90) XIY(30,90) MXIX(30) PLIX(30) 1 XIYY(30,90) XIY(30,90) MXIX(30) 2 COMMON / PARM / A1 A2 A2 AACHOO CCE 1 A2 AACHOO CCE 2 CAMMON / DARM / A1 ACHOO CCE 3 CX3(30) CX4(30) CX4(30) CX2(30) 4 CX52(30,90) CX4(30) CX4(30) CX2(30)	10		JUMP	AZU	. A2			nZ6	•	BZL	•	JUMP 2	01
2		-		CZn		4		COFF			•	COMF 1X1	
3 KPINDX(30,90) , PJUMPX(20,30) (CDMMON / LCO / DE1(90) , DE2(90) , DE3(90) , DH1(90) , DL2(90)		2		PJUMP (30 .	606			PCDEF (30 %	106			COMF IX1	10
COMMON / LCO / DE1(90) , DE2(90) , DE3(90) , DH1(90) , DL2(90) , DH2X(30) , DH3X(30) , DH3X(30) , DL3X(30) , DH3X(30) , DH3X(30) , DH3X(30) , DK2(30) , DK2X(30) , DL3X(30) , DK3(90) , DK		3		KP INDX (30	106.			JUMPX (20	.30	•		COMP 1X1	
1 DH2(90) DH3(90) DL3(90) DL2(90) DL2(90) DL3(90) DL3(90) DL3(90) DH2X(30) DH2X(30) DH2X(30) DH2X(30) DH2X(30) DH2X(30) DH3X(30)	90	COMMON	037	DE1(90)	. 00	(06)2		DE3(90)		DH1(90)		רכט	•
2 CDMMDN / LCOX / DEIX(30) , DE2X(30) , DE3X(30) , DH1X(30) ,  1 DH2X(30) , DH2X(30) , DH2X(30) , DL2X(30) ,  2 CDMMCN / XYCDE / X(30,90) , XIY(30,90) , TX(30) ,  1 XIYL(30,90) , XIY(30,90) , XX(30) ,  2 CDMMCN / PARM / A1 , A2 , A3 , A4 ,  1 CDMMON / PARM / A1 , A2 , A3 , A4 ,  2 CDM / A1 , A2 , A3 , A4 ,  3 CM / A1 , A2 , A3 , A4 ,  4 CM / A1 , A2 , A3 , A4 ,  5 CM / A1 , A2 , A3 , A4 ,  6 CM / A1 , A2 , A3 ,  CM / A2 , A3 ,  CM / A3		Total Marian		DH2(90)		(3(90)		271(90)		DL2(90)	•	רכט	
COMMON / LCOX / DEIX(30) , DE2X(30) , DE3X(30) , DH1X(30) , DH2X(30) , DH2X(30) , DL1X(30) , DL2X(30) , DL3X(30) , DL3X(30) , DK1(90) , DK2(90) , DK2X(30) , DK2X(30) , DK3(90)		2		DL3(90)								רכס	
1 DH2x(30) . DH3x(30) . DL1x(30) . DL2x(30) .  2 DL3x(30) . DK1(90) . DK2(90) . DK2(90) .  1 X1Y(30,90) . XIY(30,90) . XIX(30) .  2 X1YK(30,90) . XIY(30,90) . XIX(30) .  2 CDMMON / PARM / A1	60	COMMON	CCOX	DE1X(30)	. DE	(SX(30)		DE3X (30)		DH1X(30)	•	LCOX 3	•
2 CDMMON / XYCOE / X(30,90) , XIY(30,90) , DK2(90) , DK3(90) 1 XIYY(30,90) , XIY(30,90) , XX(30) , 2 CDMMON / PARM / A1 , A2 , A3 , A4 , 1 1		-		DH2X (30)		(3X(30)		L1X(30)		DL 2X(30)		LCOX :	
COMMON / XYCOE / X(30,90) , XIY(30,90), XIX(30) ,  XIY(30,90) , XX(30) ,  ZOMMON / PARM / A1 , A2 , A3 , A4 ,  1		2		DL.3X(30)	ž.	(1(90)		OK2(90)		DK3(90)		רכטא	
1 XIVJ(30,90) , XX(30) , XO(30) , XIVK(30,90)   2 CZ , CMEXP(2) , CK1(30) , CK2(30) , CK5(30) ,	10	COMMON	XYCOE	X(30.90)	· XI	V(30,90		KI X(30)	•			COMF TX 1	
2 COMMON / PARM / A1 . A2 . A3 . A4				XIVJ(30.9				(X (30)	•			COMF TX1	•
COMMON / PARM / A1 . A2 . A3 . A4		~		X17K(30.9	(0							COMF IX2	_
1 A5 GAMMA MACHNO COE . 2 C2 EMEXP(2) CK1(30) CK2(30) . 3 CK3(30) CK4(30) CK51(30) . 4 CK52(30.90) . CK1X(30) . CK2X(30) .	11	COMMON	PARM	A1				13		*	•	PARM	•
30) , CK4(30) , CK1(30) , CK2(30) , 30) , CK4(30) , CK51(30) , CK2X(30) ,		•		AS	. 64	MMA		MACHINO		COE		PARM	-
30) , CK4(30) , CK51(30) , CK2X(30) , (30,90)		2		25		(EXP(2)		CK1(30)		CK2(30)	•	PAPM	_
(30.90) . CKIX(30) . CK2X(30) .				CK3(30)		(4(30)		CK51(30)			•	COMP 1X10	-
				0000000									

	COMMON / BODY! /	XNOSE	XTAIL	. NBINGS	•	XBIN(2,35).	PODV	2 0
		NHODS	JBUP(2)	HON(2)		NOSE		-
104066664		JTATE .	AL PHAB	NAPTS(90)		606)8	BODY	•
4001604		KBWX(90)	CMN	- LMX		AFK(15)	BOOV	8
. 10 6 7 6 9 4		BFK(15)	CFK(15)	. AFL (15)	•	BFL(15)	BOOM	c
**************************************		Ø1(15)	ABL(15)	. BBL(15)	•	CBL(15)	NOUN .	
<b>►</b> 0 0 < ` ↔		ACL(2)	BCL(2)	. CCL(2)		BTYPE .	AGON .	•
66∢∵∺		XPRU(90)	XRBL (90)	. DZRBU(90)		DZRBL (90)	CHEN1	-
6 < ` H		NRRU .	NRBL	· YRB	•	ZRBU	BUDY .	10
•		ZPR.	KBMXX(30)	. JNOSEX	•	STATLX	NOON .	1.1
1SN 0014 C		RB IN (2,35).	XNOSEX	. XTAILX	•	YOR	FIXCYA	-
-	COMMON / RODV2 /	FX(30.90) .	FY(30,90)	. F7 (30,90)			COMF TX23	23
		KROD (30,90)		. LBU(20.90)	. (0	LBD (20,90),	. COMF 1X24	24
2		NBPTSX(30).	LBOD (30,90)		•		COMP IX25	52
		LBUX (20,30)		. LBDX (20,30)	301	The last of the last	. COMF IX26	92
•		FYX(20.30).	CPS(20,90)				COMF IX27	22
ISN 0015	COMMON / BODV3 /	KBMAX .	KBMAXX	. LLBL		LRU	NOUB .	18
•		LLRLX .	LLBUX	. PBCU(30.90)	606		COMF TX29	2
2		KRS .	PBCL (30,90)		•		COMP IX30	30
		RBCUX (20,30)	•	. RBCLX(20,30)	.301		COMF 1X31	31
•		DRRCU .	DRBCL	. DRBCUX	•	DRBCLX	COMF TX32	32
9		SALPH(90)	SALPHX (30)				COMF 1X33	33
ISN 0016	COMMON / BODYBC /	IBUD .	TBLD	. IBSIDE	•	ETABU(10)	COMF 1X34	34
•		ETABL(10) .	ZBOD(20)	. NRBS	•	XRBS(100)	COMF TX35	35
7100	DIMENSION	A(50)	8(50)	. (150)	•	0(20)	DBNDY 19	19
U							DENDY 20	50
0018	DIMENSION	P(20,30,90)					IBM	-8
	EQUI VALENCE	(P(1),PF(1))	•				TBM	64
							DBNDA	21
Cessses	**** DIVIDE P BY X	DISTANCE FACTOR ****	105 ******	********	*	*********	F DRND Y	25
U							DBNDY	23
U							DRNDY	24
	C21 = 1./C2						DANDA	3
		-					DBNDA	56
	ESO = C214ETA(K) *ETA(K)	ETA(K)					DRNDY	22
0023	XSO = X(K,JMAX)**2	2					DBNDA	28
0024	DO 100 L = 2.LMAX1	I consider the same I					DBNDY	50
	PD = SOPT (XSQ + A1* (ESO		+ ZT(L)*ZT(L)))				DRNDY	30
	P(L.K.,P1) = 2.*P	0	. + XIK.JMA	(JAZ)			DBNDY	31
100 0							PONBO	32
	771 = 77(1)						PONDA	33
							DENDY	34
C*****	*** COMPUTE P ON PERIMETER OF	ERIMETER OF	DOWNSTREAM PLANE	PLANE *****	***	**********	*ONBO	1
v							DRNDY	36
	ZTZ = ZT(LMAX)						DBNDY	37
0030	ZT150 = C2*ZT1*ZT1						PONNOY	38
	ZT250 = C2*ZT2*ZT2	2					DRNDY	30
		1.1					DANDY	0.
0033	-	12					DRNDY	
							DRND	42
	ETASO = ETA(K) *ETA(K)	ACKI					PONNO	
2500	Pitaka Dil = Trof	= TCOF1 /(FTASO + 77150)	11501				NONBO	4

101   DOTATIME   TCGF2/(ETASO + Z75SO)   TOTATION   TOTATION   TCGF = Z+ACOFF   TCGF = Z+ACOFF

		DBND Y151 DBND Y152 DBND Y154 DBND Y156 DBND Y156 DBND Y156
	JP1) - (DL2(L) - DRBCU)*P(L*K*JP1)  21) - RBCU(K*JMAX)  34) (L-1*K*JP1) - (DL2(L) - DRBCL)  3P1) - RBCL(K*JMAX)  ***********************************	DRND V153 DRND V154 DRND V155 DRND V155 DRND V156 DRND V157
20	JP1) - (DL2(L) - DRBCU)*P(L*,JP1)  21) - RBCU(K*,JMAX)  31) - RBCU(K*,JMAX)  31) - RBCL(K*,JMAX)  441) - RBCL(K*,JMAX)	DRND Y154 DRND Y155 DRND Y155 DRND Y156 DRND Y157
23	JP1) - (DL2(L) - DRBCU)*P(L*K*JP1)  21) - RBCU(K*JMAX)  34) (L-1,K*JP1) - (DL2(L) - DRBCL)  34) - RBCL(K*JMAX)  ***********************************	DBND Y154 DBND Y155 DBND Y156 DBND Y158
23 1 4 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	JP1) - (DL2(L) - DRBCU)*P(L*K*JP1) P1) - RBCU(K*JMAX)  **P(L-1*K*JP1) - (DL2(L) - DRBCL) **JP1) - RBCL(K*JMAX)  ***********************************	DBND Y155 DBND Y156 DBND Y157
	01) - RBCU(K.JMAX) )*P(L-1.K.JP1) - (DL2(L) - DRBCL) .JP1) - RBCL(K.JMAX)	DBND Y156 DBND Y157 DBND Y158
	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  JP1) - RBCL(K,JMAX)  ***********************************	DBND Y157
230 14 L 230 14 L 200 14	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  JP1) - RBCL(K,JMAX)	DBND Y158
23 1 2 4 4 5 5 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  ,JP1) - RBCL(K,JMAX)  ***********************************	OCT CINOCI
23 12 12 12 12 12 12 12 12 12 12 12 12 12	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  • JP1) - RBCL(K,JMAX)  ***********************************	
	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  JP1) - RBCL(K,JMAX)  ***********************************	DBND VISO
230 CCC CCCC CCCCCCCCCCCCCCCCCCCCCCCCCCCC	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  JP1) - RBCL(K,JMAX)  ***********************************	DBND V160
230 COC. C. S. S. C. C. S. S. C.	)*P(L-1,K,JP1) - (DL2(L) - DRBCL) • JP1) - RBCL(K,JMAX) ************************************	DBNDYIEI
230 1 4 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  JP1) - RBCL(K,JMAX)  ***********************************	DBND 7162
23	)*P(L-1,K,JP1) - (DL2(L) - DRBCL)  JP1) - RBCL(K,JMAX)  ***********************************	DBNDYIES
230 CON C C * * * * * * * * * * * * * * * * * *	• JP1) - RBCL(K• JMAX)	DRND Y164
230 CON C 207 CO	******	DBNDV165
C 207 CRR KRR C C C C C C C C C C C C C C C C	*******	DBND V166
C 207 C C C C C C C C C C C C C C C C C C C	*************************	DBND VI67
C 20 L/S 14 L/S 16 L/S		**DBNDY168
207 CRR 1880 CR 1880 C		DRNDY169
207 17 18 18 18 18 18 18 18 18 18 18 18 18 18		FRRDI 126
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207 CON		DRNDVI75
207 CON		DBND V176
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C C***********************************		DRNDVITA
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206 CON 861 861 861 861 861 861 861 861 861 861	SOR OF TRIDIAGONAL MATRIX FOUATION *******************	*
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		DRNDVIBO
0136 203 CONTINUE		DBND VIOO
0137 L2=LMAX-3		DRNDVIOL
0136 FO 204 LL=1,L2		DBND V192
0139 L=L.MAX1-LL		DAND VIOS
		DRND Y104
204		DRNDVIDA
		DRND V196
***** TEST FOR ERROR	*********	**DRND V107
		DRND YTOB
0142 PO 205 L=2, LMAX1		DRND YI GO
PIL		DRND 7200
C PF (KINNT .N		EPRPL127
200		DAND Y202
ALE ADECTO IT CODODI CO TO SOE	a ve	TOO CHOO

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DATE 77.295/15.29.36	DAND 7204	DBND Y205	DBND Y206	DBND 7207	DENDYZOR	DRND YZ 09
05/360 FORTRAN H EXTENDED						
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AGNEO	ERROR=ARF S10	JE=JMAX	KE = K	) = J	CONTINUE	KP1=K+2
1 76)					205	
2.2 (SEPT 76)						
2.2			0149		0151	0152
LEVEL	ISN	ISN	ISN	ISN	ISN	ISN

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TEPM FLAG(1) DUMP 4990, SUBPROGRAM NAME = DBNDY

162. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT! STICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

120K BYTES OF CORE NOT USED

HE OLESTED OPTIONS OPT(2) . NOMAP

	DUM
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NAME (MAIN) OPTIMIZE(2) LINECOUNT (56) SIZE (MAX) AUTODBLINONE	JURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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ISN 0003	COMMON	/ LARGX /	PC (20.20.30)	0.30	•	•	DJK10X(20,30)	30	•	COMF IX52	X52
	-		DJK11X(20.30)	20 .3	(0)		DJK1X(20,30)	30)		COMP IX53	X53
ISN 0004	COMMON	/ INDEXX	/ JMAXX	•	KMAXX	•	LMAXX	•	KTM1X	INDEX	8
			KTIPX	•	KTIPIX		JLEX (20)		JEX (20)	INDE XX	8
	2		LWNGUX	•	LWNGLX		JMAXX1		KMAXX1	INDEX	*
	3		LMAXX1	•	KROOTX		JP1X			INDEX	R
154 0005	- NUMMUN	EXTED	/ XIEXIZO		FTAYCOU		2777		VINY 301	EYTEO	
600		4			XICX (30)		(OE) XOIX		FTALK (30)	EXTER	
			ETACY(20)		ETADY (20)		VM TAN		NA ANA	CVTED	•
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	•		* * *	•	x M02		× 47.72		×100 K	EVTED	
			ZDA IX	•	ZCW1X		VAL.		400	CATED	
	-				2007		*******		200		
15N 0006	COMMON	COMMON / KELAKP	MAXI	•	MAXILIN		MAXITX	•	INCK	KELAXP	2 1
			INCKY	•	RIEST		RIESTX	•	KSUB .	KELAND	8
	2		RSUBX	•	RES 103 (30)	•	EPS	•	EPSEX	RELAX	4
	3		I,	•	WIX		JRD	•	KRD	PELAX	8
	•		LRD	•	BIGRL		- F		KE	PELAXP	8
	2		3	•	ERROR		KOUNT		NSUP	PEME SH	H
	9		IPASS							REME SH	*
1SN 0007	COMMON	COMMON / JUMP /	AZU	•	AZL		BZU		BZL	JUMP .	2
	-		CZO	•	CZL		COFF			COMF IX14	X 14
	~		PJUMP ( 30 , 90 )	06.0	•		PCDEF(30,90)	106		COMF IX15	X15
	3		KP INDX (30,90)	30.0	10		PJUMPX (20,30)	30	•	COMF 1X16	X16
15N 0008	COMMON /	XYCOF	( X(30.90)	•	XIY(30,90)		X1X(30)			COMF 1X1R	XIX
	•			100			(0E)XX			COME 1X10	X 10
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0000	more / name	, ,,,,,,									-
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			2 5	•	THE WORLD		THE CHING				,
	,		7,	•	CHEAP (2)		CALL 30)		CK21307	LAKE.	•
	3		CK3(30)	•	CK4(30)		CK 21 (30)		- CONT	COMP IXIO	XIO
	•		CK52(30,90)	106			CK1X(30)		CK2X(30)	COMF 1X11	XII
	2		BLDL	•	WCOE					COMF 1X12	X12
010	REAL		MACHINO							COMF 1X13	XIS
0011	NOMMON	/ BODVI /	XNOSE	•	XTAIL		NB IN (2)		XBIN(2,35),	8000	~
	-		SODEN	•	JRUP(2)		JBDN(2)		MOSE	BODY	
	2		JIAIL	•	ALPHAB		NBPTS(90)	•	R(90)	800	4
	3		KBMX (90)		CAN		LMX		AFK(15)	BODY	S
	•		BFK(15)	•	CFK(15)		AFL(15)		BFL(15)	BODY	9
	c		GEL(15)	•	ABL(15)		BBL(15)		CB1 (15)	RODV	1
	•		ACL(2)	•	BCL(2)		CCT(S)		HTYPE	RODV	~
	1		XRBU(90)		XPBL (90)		DZPRU(90)		DZRBL (90)	CHEN	•
	8		NRBU	•	MRBL		YRB		28BU	RODA	10
	•										
	•		ZRA	•	KBMXX(30)		JNOSEX		STAILX .	BODY	13

161

LEVEL 2.2		(SEPT 76)	DENDAX	092/300	D FORTRAN H	EXTENDED	DAT	DATE 77.295/15.30.10	0.10
15N 0012	2100		COMMON / BODV2	/ FX(30,90) . KBCD(30,90)	FY(30,90) .	FZ(30,90)	LBD(20.90).	COMF 1X23	
			N F1	LBUX(20,30)	LB00(30,90)	LB0X(20,30)		COMF 1X25	
ISN	00 13		COMMON / BODV3	KBMAX	KBMAXX		TEN .	800V 18	
			- 2	KBS	PBCL(30.90)	RBCU(30.90)	• 1000000000000000000000000000000000000	COMF 1X29	
				RBCUX ( 20 .30 )	•	RBCLX(20,30)		COMF 1X31	
			4 10	SALPH(90)	SALPHX (30)	DRBCUX .	DRBCLX.	COMF 1X32	
ISN	0014		COMMON / BODYBC	/ IBID	IBLD .	IBS IDE	ETABUCIO) .	COMF TK34	
ISN	00 15		COMMON / LCOX /	DE1X(30)	DE:2X(30)	DE3X(30) .	CH1X(30)	LCOX 2	
ž				DH2X(30)	DH3X(30)	DL1X(30) .	DL2X(30) .	LCOX 3	
		·		• (ac)ycan	• (05)130	- 10615W	10616	DBND YX16	
	9100		DIMENSION	A(20)	B(20)	C(20)	0(50)	3	
ISN	90 18		EQUIVALENCE	(PC(1),PP(1))				18M 51	
		U						DRND WZO	
Z	6100	U	X14 = 14					DAND YX21	
		:	*** DIVIDE P BY	X DISTANCE FACTOR *****************	TOR *******	**********	***********	DBND YX23	
ISN	00 50	,	C21 = 1./C2					DBND YX25	
	0021		DO 100 K = 1.KMAXX1	AXX1				DBNDVX26	
NSI	2200			K)*LIAX(K)				DRND WZ	
	0024		DO 100 L = 2.LMAXXI	AXXI				DANDYZZE	
	9200		PO = SORT (XSQ +	SORT (XSQ + A1*(ESQ + ZTX(L)*ZTX(L)))	(()*ZTX(L)))			DRND VX30	
	9200		P1) =	2.*PP(L,K,JP1)/(1.	+	XX(JMAXX)/RD)		DRND W31	
	0027	100	CON					DBND WX32	
ISN	0028	•	ZII = ZIX(II)					DBNDVX33	
			*** COMPUTE P ON	P ON PERIMETER OF DOWNSTREAM PLANE	DOWNSTREAM PL	LANE ******	**********	FORND YX35	
	50	U						DRND VX36	
ISN	0200		712 = 21X(LMAXX)					DEND WEST	
	0031			7.7.2				DBND VX30	
	0032			<b>*</b> 77.1				DBND YX40	
	00 33		TCOF2 = 2.*COFF*ZT2	*ZTZ				DBND YX41	
	0034		NO 101 K = 1.KMAXX	AXX				DBND VX42	
ISN	0030		DOLL-K-IDIL = TCOF1/0FT	(K)*ETAXIK) = TCOF1/(FTASO + 7T1SO)	71150)			DBND YX & 3	
	0037			= TCOF2/(ETASO + ZT250)	0 + 27250)			DBND YX45	
	92 00	101	17.6					DBND VX46	
	0030		~	AXX )*ETAX (KMAX	<b>.</b>			DRND YX47	
NSI	0040		i.	***				DBNDYXAR	
	0042		PP(LeKMAXX.JP1) =		VIETASO + CZ	TCOF *2TX(L) / (ETASQ + C2*ZTX(L)*ZTX(L))		DAND YX 40	
	0043	102	= 100					DBND WS1	
		U						DBND YXS2	

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DATE 77.295/15.30.10
                                                              DBND V109
                                                                                                                   DBND VI 13
                                                                                                                                                                                                                                                   DBND Y123
                                                                                                                                                                                                                                                                                                                                                                       DBND Y132
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                         DRND Y106
                                                                            DBND Y110
                                                                                                      DBND YI 12
                                                                                                                                DRND Y114
                                                                                                                                              DBND YI 15
                                                                                                                                                           DBND Y116
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                                      DAND Y107
                                                   DBNDYIOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FRRPL128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        *PP(L.K.JP1) + (DL3X(L) - DRBCUX)*PP(L+1,K.JP1) - RBCUX(K.JMAXX)
                         D(L) = D(L) + DK1(K) + PP(L,KM1, P1) - (DK2(K) - DDV) + PP(L,K,JP1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cassass FIND BIGGEST RESIDUAL ***********************
                                                                                                                                                                                                                                       2 *PP fLWGUX *K.JP1) + (DL3X(LWGUX) - ZRVUX)*PP (LWNGUX+1.*K.JP1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             I DRBCLX)#PP(L.K.JPI) + DL3X(L)#PP(L+1.K.JPI) - RBCLX(K.JMAXX)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O(L) = D(L) + (D(L)X(L) - DRBC(LX) + PP(L-1,K,JP1) - (D(LX(L))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D(L) = D(L) + DLIX(L)*PP(L-1,K,JP1) - (DL2X(L) - DRBCUX)
                                                                                                                                                                                                              DILWINGUX) = DILWINGUX) + DLIXILWINGUX | #PP(LWINGUX-1-K +JPI)
                                                                                                                                                                                                                          1 - 0 - SHZL WX *P JUMP X(K. JMAXX) - (DLZX (LWNGUX) - ZCVUX)
                                                                                                                05/360 FORTRAN H EXTENDED
                                      1 + (DK3(K) - DDY)*PP(L,KP1,JP1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A(L) = A(L) - DL1X(L) + DRBGLX
B(L) = B(L) + DL2X(L) - DRBGLX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIL) = BIL) + DL2XIL) - DRBCUX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C(\Gamma) = C(\Gamma) - D\Gamma 3X(\Gamma) + DRBCUX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              210 IF (KDUNT.NE.INCRX) GD TD 206
                                                                                                                                                          3 + 0.54ZRVLX#PJUMPX(K,JMAXX)
                                                                                                                                                                                    BILLWIGUX) = - ZCWUX - DKI(K)
                                                                                          DILLWIGLX) = -ZCVLX - DK1(K)
                                                 B(L) = B(L) + DK1(K) - DDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DO 207 L = 2.LMAXX1
                                                                             AILWIGLX) = ZLVLX
                                                                                                                                                                                                 CILVNGUK) = ZRVUX
                                                                                                                                                                                                                                                                                                                      DO 231 L = L1.L2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABSN = ABSIDILI)
                                                                                                                                                                        ALL WINGUX) = 0.0
                                                                                                      CILWNGLX) = 0.
                                                                                                                                                                                                                                                                                            CASSESS INTERIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                          L = L2 + 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1-11-1
                                                                                                                                                                                                                                                                                                                                                B(L) = 1.0
                                                                                                                                                                                                                                                                                                                                                            A(L) = 0.0
                                                                                                                                                                                                                                                                                                                                                                       D(L) = 0.0
                                                                                                                                                                                                                                                                                                                                   C(L) = 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       A(L) = 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C(L) = 0.
                                                                                                                                                                                                                                                    GO TO 230
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 (SEPT 76)
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  LEVEL 2.2
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212113 2 2263233333 33 33233333333333333

ADPTIONS IN EFFECT MANE (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODAL(NONE)

\*\* PETIONS IN EFFECT\*SOURCE EBODIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP DATE 77.295/15.30.10 4074. SUBPROGRAM NAME =DANDYX 05/360 FORTRAN H EXTENDED 150 . PROGRAM SIZE = SOURCE STATEMENTS = DBNDYX LEVEL 2.2 (SEPT 76) \*STATISTICS\*

PAGE

\*STATISTICS\* NO DIAGNOSTICS GENERATED

120K BYTES OF COPE NOT USED

DATE 77. 295/15.31.20

LEVEL 2.2 (SEPT 76)

REQUESTED OPTIONS OPT(2) . NOMAP

NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP UPTIONS IN EFFECT

٥										PHIROD
*	1	O ****	3	TE POTENT	AL AT B	HODY PC	sessessess COMPUTE POTENTIAL AT BODY POINTS ssessessess	*********	***	PHIBID
U										PHTRO
	COMMON	COMMON / LARGN /		PF (20.30.90)	0	•	DJK1(30,90)	•	•	COMP IX45
				DJK2(30.90)	•	•	DJK3(30 .90)	•	•	COMF 1X46
	2			DJK4(30,90)	•	•	DJK5(30,90)	•	•	COMF IX47
				DJK6(30.90)	•		DJK7 (30.90)	•	•	COMF IXA
	•			DJK8 (30,90)	•		DJK9 (30,90)	•	•	COMF IX49
	0			DJK10 (30,90	(0)	•	DJK11(30,90	(0)		COMF 1X50
	COMMON	/ INTER		(06) IX	. ETA(30)	30)	, 7T(20)	(06)NIX .	•	INTER
				XIL(90)	. XIC(90)	106	XIR(90)	. ETAL(30)	•	INTER
	2			ETAC(30)	. ETAR(30)	(30)	COEU	· COEL	•	INTER
				ZCWU	. מת		ZRW	. ZCVL	•	INTER
				PDUM(30)	. EDUM(30)	(30)	XMIN	. XMAX	•	INTER
	9			YMAX	. ZMAX		VMIN	· ZMIN	•	INTER
	9			ZW	. ZRVU					INTER
	COMMON / INDEX	/ INDEX		JWAX	. KMAX		LMAX	. KTM1	•	INDEX
				KTIP	. KTIP1	_	JWLE	. JE(30)	•	INDEX
	N			JWTE	. JTE(30)	30)	LWINGL	. LWINGU	•	INDEX
	n			JMAX1	. KMAXI		LMAXI	. KROOT	•	COMF 1X
				101						TANDEX
	COMMON / BODY!	BODY		XNOSE	. XTAIL		NB IN(2)	. XBIN(2.35	51.	BODY
	-			NBCDS	. JRUP(2)	(2)	JBDN(2)	. SNOSF	•	RODA
	2			JTAIL	. ALPHAR	NB .	NBPTS(90)	. R(90)	•	BODV
	3			(06)XM8X	· LMN		LMX	. AFK(15)	•	BUDY
	4			BFK(15)	. CFK(15)	15)	AFL(15)	, BFL(15)	•	BODY
			14	CFL(15)	. ABL(15)	(8)	881(15)	. CBL(15)	•	RODV
	9			ACL(2)	. BCL(2)	2)	CCL(2)	. BTYPE	•	BODV
	7			XREU(90)	. XREL (90)	(06)	DZRBU(90)	. DZRBL(90)		CHEN 1
	æ			NRBU	. NRBL		YRB	· ZRBU	•	800V 1
	•			ZREAL	. KBMX	KBMXX (30)	JNOSEX	. JTATLX	•	BODY 1
	4			RR IN (2,35)		×	XTAILX	· YOB		FIXCYA
	COMMON / BUDNS	/ BUDAS /		FX (30 . 90 )		FY(30,90)	FZ(30,90)		•	COMF 1X23
	1			KBOD (30,90)			LBU( 20.90).	. LBD(20.90)	.10	COMF 1X24
	~			NBPTSX (30).		LBOD (30.90)		The list will be		COMF IX25
	m			LBUX (20,30)			LBDX (20,30)	· Sedimer	•	COMF 1X26
	•			FYX(20,30)		CPS(20,90)				COMF 1X27
	COMMON / BODV3	/ BODV3	-	KBMAX		×	LLBL	· LLBU	•	BODY 18
				LLFLX	. LLRUX		RBCU(30,90)	•	•	COMF 1X29
	2			KRS	. RBCL	RBCL (30,90)	701-1014	- PERMITTE		COMF IX30
	8			RBCJX (20 +30)			RBCLX(20+30)	0)	•	COMF IX31
	•			DRRCU	. DRACL		DRBCUX	. DRBCLX	•	COMF IX32
	*			SALPH( 90)	. SALP	SALPHX (30)				COMP 1X33
	COMMON	COMMON / BODYBC	•	IBUD	. IRLD		TBSTOE	. ETABU(10)		COMF IX34
	•			ETABL( 10)	. 7800(20)	(50)	NRBS	. XRBS(100)	•	COMF IX35
	COMMON / WINGRO	Jasmin /								
		JOS WIN		ZLM	. ZRWC	•	TW15T(30)	S SECTION 2		COMF IXA2

- W + W - E W + W - E	ICAL  CAL  STHINETRY PLANE  SUD(1.J.)  KBOD(1.J.)	P.JUMP (30,90) TO INSK (30,90) TO ISK (30,90) THUMP (119,00) THUMP (119,00) TO ISK (119,00) TOP OF BODY	1 ISAVE WARCPRT 1 ISPAN REMESH IVISC AXISYM 1 ISPAN REMESH INTSC AXISYM AXISYM AXISYM	PCOEF(30.90) PJUMPX(20.30) PJUMPX(20.30) PLOT PROPRT PROPT	20.30) 20.30) . MSHINT . BODY . ICRUDR . YAW	•	COMFIXES COMFIXES FLAGS 2 FLAGS 3
٠ ٠ م د م م ي قوم م م ي قوم م د د د م د م م ي قوم م م ي قوم م	Ne :	P. Jump ( 30 - 90 KP INDX ( 30 - 90 SOLV FCR EXTMSH IBUMP ID 15K SOLV FCR EXTMSH IBUMP IBUMP IBUMP IBUMP IBUMP IBUMP IBUMP IGO IN RETURN	ISAVE ISAVE ISPAN ISPAN AXISYM AXISYM ISPAN ISPAN ISPAN ISPAN AXISYM AXISYM AXISYM AXISYM	PUDET CONTROL OF THE	20.30) 20.30) MSHINT MSHINT ICRUPR YAW IFOLLT	•	COMF IXES COMF IXES FLAGS 2 FLAGS 3
ب ں ب ں ں	, and	SOLV FCR EXTMSH HUMP HODDIN HODDIN FCR EXTMSH HUMP HODDIN RETURN TOP OF BODY	ISAVE WACPRT ISPAN REWESH IVISC WACPRT ISPAN REWESH REWESH ISPAN REWESH IVISC AXISVM	IPLOT BECPRT IFINP ITWIST AREA IPLOT BECPRT IFINP IFINP ITWIST AREA	MSHINT BODY ICRUDR YAW IFOILT	• •	FLAGS 2 FLAGS 3
- ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	C W		MACDRT ISPAN REMESH IVISC MAISYM AXISYM ISPAN REMESH REMESH IVISC AXISYM AXISYM	BBCDRT  IFIND  ITMADR  ITMADR  AREA  IPLOT  BBCDRT  IFIND  IFIND  IFIND  AREA	BODY ICRUDA YAW IFOILT		FLAGS 3
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	BOOV ) PLANE		ISPAN REMESH INISC AXISYM AXISYM ISAVE WRCPRT ISPAN REMESH INISC AXISYM	IFINE IMAPR ITWIST AREA IPLOT BECPRI IFINE ITWIST AREA	YAW FOILT	-	INPTX 1
n 4 m - m - m - m - m - m - m - m - m - m	BODY )		REWESH IVISC AXISYM ISAVE WRCPRT ISPAN REMESH REMESH AXISYM	IMAPR ITWIST AREA IPLOT BECPRI IFINR IFINR ITWIST AREA	· FOILT	•	- Company
	BODY ) PLANE		IVISC AXISYM ISAVE WRCPRT ISPAN REMESH IVISC AXISYM	AREA AREA PLOT BECPRT IF INP ITWIST AREA	· FOILT	•	INPTX 2
	BODY )		AXISYM ISAVE WECPRT ISPAN REMESH INISC AXISYM	AREA BECRET BECRET IF INR ITWIST AREA		•	INPTX 3
9 - 2 - 2 - 2	BODY )		ISAVE WRCPRT ISPAN INTSAN AXISYM	HBCPRT HBCPRT IF INR ITWIST AREA	. IBLOUT		INPTX 4
- wn 4 m L	BODY ) PLANE		MECPRT ISPAN REMESH IVISC AXISYM	HBCPRT  IF INP  IMAPR  ITWIST  AREA	. MSHINT	•	COMF IX 4
wn + w <u>⊾</u>	BODY ) PLANE		ISPAN REMESH IVISC AXISYM	IFINE IMAPR ITWIST AREA	. BODY	•	COMF TX 5
m <b>4</b> w L	BODY ) PLANE		AXISYM	• ITWIST • AREA	. ICRUDA	•	COMF 1X 6
4 W H	BODY ) PLANE		AXISYM	• AREA	. YAW	•	COMF 1X 7
د ن ن آ	BODY ) PLANE		W XX	• AREA	. IFOILT	•	COMF IX &
H	BODY ) PLANE				. IBLOUT		COMF IX 9
	PLANE J.						FIGURIA
	PLANE J)		-0				PHIRMS
TATE OF THE PARTY OF	5		• •				PHIBIDIE
U	800(1.J) KB00(1.J)						PH180017
0016 Lat.	KB00(1.3)						PHIRODIA
							PHIBODIO
= 1 = 1 =	L-LWINGU + 1						PHIBODZO
8	- 1						PHIBODZI
	PF(LoKoJP)=-(FX(1,J)+(BFL(1)*PF(L+1oKoJP)+CFL(1)*PF(L+2oKoJP))	3)+(BFL(I)+	rPF(L+1.K.J	P) +CFL(I)*	PFIL+2.K.JP		PH18@22
•	*FZ(1,3))	•					PHIROD23
-	/(AFL	/(AFL(1)#F2(1,3))					PH180024
U							PHIBIDSS
MST	NSTART = 2						PHIB ID 26
U							PHIBIDSE
0023 00 10	10 M = NSTART, NEND	NEND					PHIBID29
U							PHIBOD30
14	( LEOD (M.J) .LE. ENING.	. ENING. )	GO TO 11				PHIBOD31
N N N N N N N N N N N N N N N N N N N							PHIBID32
	D(M,3)	.EO. LWINGU )	MM=N+1				PHIBIDSS
	GO TO 12						PH180034
11	TAKE						PHIBODIS
	NEND + MM I M						PHIRUDSO
0032 12 CON	CONTINUE						PHIBIDST
٠	11 11 1000						BE CONTRACTOR
0033	THE BOOK OF THE						PHIBOTA
U							PHYRODA
******	Y CONTRIBUTION						PHIBODAZ
U							PHIRODAS
00 35 CYN	= FX(N.J) + (BFK (K) # PF(L.K+1.JP)+CFK(K) # PF(L.K+2.JP)) # FY(N.J)	FK (K) * PF(L.	K+1 . JP ) +CF	K (K) * DF (L.	K+2.JP) )*FY	(5.N)	PHTBODAA
THE RESIDENCE OF THE PARTY OF T	CYD=AFK(K)*FY(N.J)						PHIB CD45
U							PHIROD&6
	EO.	10					PHIB CD #7
0039 IF(	L .EO. LWINGL	) GO TO 40					PHIBIDAR

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PHIB0148
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                                                                     PH180107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PHIBOISI
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DZ2 = .5/(ZT(L) - ZT(L-1))
PF(L. K.JP) = -(CYN-(DZ1*0.5*PJUMP(K.J)+DZ2*PF(L-1.K.JP))*FZ(N.J))
                                                                                                                                                                                                                                                       PF(L_{*}K_{*}JP) = -(CVN+(-DZ1*PF(L-1,K_{*}JP)+DZ2*WBCL(K_{*}JWBC))*FZ(N_{*}J))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PF(L_{aK}, JP) = -(CYN+(BBL(1)*PF(L-1*K, JP)+CBL(1)*PF(L-2*K*JP))
: *FZ(N*J)) /(CYD+ABL(1)*FZ(N*J))
                                                                                                                                                                                                                                                                                                                                                                              92 = -(CYN+(ACL(1)*PF(L-1,K,JF,J-CCL(1)*PJUMP(K,J))*FZ(N,J))
05/360 FORTRAN H EXTENDED
                                                                                             B2 = -(CYN+ACL(1)*PF(L-1,K,JP)*FZ(N,J))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /(CYD+(-021+022)*FZ(N.J))
                                                                                                                               PF(L eK .JP) = (81*A22 - 82*A12)*DNOM
PF(L+1 eK .JP) = (82*A11-81*A21)*DNOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C****** SYMMETRY PLANE BOTTOM OF BODY C
                                                                                                                                                                                                                                                                    /(CYD+D71*FZ(N.J))
                       GO TO 42
                                                                                                                     DNOM = 1./(A11*A22 - A12*A21)
                                                                                                                                                                                                                                                                                                        1F ( J .EQ. JMAX ) GO TO 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                      021 = 1./(2T(L+1) - 7T(L))
                                                                                                                                                                                                                                                                                                                                                      421 = CYD+BCL(1) #FZ(N,J)
                                                                      A21 = CYD+8CL(1)*FZ(N.J)
                                                                                                                                                                                                                    021=05/(ZT(L)-ZT(L-1))
                                                                                                                                                                                                                                                                                                                                                                                                                             C***** DIWNSTRE AM BOUNDARY
                                                                                                                                                                                                                                                                                                                              C****** DOWNSTRE AM OF WING
                                                                                                                                                                                                                                                                                                                                                                  A22 = CCL(1) *FZ(N.J)
                                                                                  A22 = CCL(1)*FZ(N.J)
                      IF( J .GT. JTE(K) )
                                               COSSESSE UPSTREAM OF WING
                                                                                                                                                                                                                                            JWBC = J+1-JLE(K)
PH1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C****** LOWER BODY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 = L-LMN + 1
                                                                                                                                                                                                                                DZ2= .5 ACDEL
                                                                                                                                                                                              C****** AT WING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 *FZ(N.J))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N=NBPTS(3)
                                                                                                          CONT INCE
                                                                                                                                                                                                                                                                                                                                                                                          GO TO 20
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LEVEL 2.2 (SEPT 76)
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CHRIST PAR INCHE 763

PHIR0156	PHIBMS7	PH180158	PH180159	PHIROIAO	PH18 0161	PH180162	PHIROTES	PH180164	PH180165	PHIB MA6	PHIB MAT	PH180168	PHIBUIGO	PHIR 0170	PH180171	PHIRM 72	PH180173	PH180174	PHIBOTES	PH180176	PH180177	PHIBOITE	PH180179	PH180180	PHIBOIRI	PH180182	PHIBOIRS	PHIBOIRA
Lat BOD(N, J)	K = KBOD(N+J)	1 = t-LMv+1	HF(L = K = JD) = - (FX(N = J) + (BBL(1) + PF(L-1 = K = JD) + CBL(1) + PF(L-2 * K = JD))	A **EZ(N.J))	1 /(ABL(1)#FZ(NaJ))		Cassasse FIND P FOR UPWIND DIFF.		IF ( J .EO. JMAX ) RETURN	IF ( NBPTS(J+1) .GE. NBPTS(J) ) RETURN	NEND=ABPTS( J+1)	DO 60 N=1.NEND	L=LB0D(N, J41)	K=KPOD(N,J+1)	PF(L.K.JP) = PF(L.K+1.JP) + ((PF(L.K+1.JP)-OF(L.K+2.JP))	1 * (ETA(K)-ETA(K+1))/(ETA(K+1)-ETA(K+2)))	IF( L .LE. LWINGL ) GD TO 61	PF(L,K,JP)= .5*(PF(L,K,JP) + (PF(L+1,K,JP)+ (PF(L+1,K,JP)-	1 PF(L+2,K,JP))* (ZT(L)-ZT(L+1))/(ZT(L+1)-ZT(L+2))))	60 10 60	61 CONTINUE	PF(L.K.JD)= .54(PF(L.K.JP) + (PF(L-1.K.JP)+ (PF(L-1.K.JD)-	1 PF(L-2,K,JP))* (ZT(L)-ZT(L-1))/(ZT(L-1)-ZT(L-2))))	60 CONTINUE			RETURN	ENO.
4010	0115	1110	0112						0113	9110	2110	9110	9110	6120	0121		ISN 0122	0124		ISN 0125	ISN 0126	ISN 0127		15N 0128			15N 0129	15N 0130
Eller	100	Silve	187						ISN	ISN	ISN	ISN	ISN	ISN	ISN		ISN	ISN		ISN	ISN	ISN		ISN			ISN	ISN

HOPTIONS IN EFFECT MAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTOPBL (NONE)

2776. SUBPROGRAM NAME =PHIBOD

120, PROGRAM SIZE = SOUPCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

128K BYTES OF COPE NOT USED

LEVEL 2.2 (SEPT 76)

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CDMMON INTER / XI100) - CTA130 - XIC120 - XIN100) - XIC120 - XIC130 - XIC13		COMMON /								1	Build		
COMMON   NDDEX   JMAX   STATE   STAT	\$ <b>*</b> \$	- 2 6 4 4		*****	.02772		100711		100771		CHAN		
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STATE   STAT	<b>4</b> 80	m∢v		ETAC (30)	. FTAR(30		COEU		COEL		NTER		
### POUM(30) * KNIN * XNAX * XNAX * CAX * VRIN * ZMIN * ZMIN * COMMON * INDEX * JMAX * KNAX * LMAX * CANAX * CAX *	<b>4</b> 80	• •		ZCWU	· ZLVL	•	ZRVL		2CVL		INTER	•	
5	<b>4</b>			POLM(30)	. EDUM(30		XM IN		KMAX		INTER	9	
COMMON   NNEK / JAKK   KANK   LMAX   KTM1	<b>*</b> 000	0		YMAX	. ZMAX	•	VENT		NIM		NTER		
COMMON   INDEX   JMAX	<b>4</b> 89	9		2rv	. ZRYU						NTER	œ	
MTIP	\$	COMMON /		JMAX	. KMAX	•	LMAX		KTM1		MDEX	2	
2 JWTE - JTE(30) - LWINGL - LWINGU - JUNION - JUNION - KWAXI - KWADIT - JUNION - JUNI	99	-		KTIP	. KTIPI	•	JWLE		JE(30)		INDE X	3	
### ### ### #### #####################	900	2		SWTE	. JTE(30)	•	LWINGL	•	LWINGU		MOEX		
### COMMON / BODVI / XNOSE	909	3		JWAX1	. KMAX1	•	LMAX1		KRODT		JUNE 1X	-	
COMMON / RODY / XNOSE , XTAIL , NEIN(2) , XBIN(2,35),  2	507	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		JP1							NIDEX	ç	
1 NRTOS - JUDP(2) - JUDAGE - JUDSE - JUDAGE - JUDAGE - JUDAGE - JUTAIL - ALPHAR - WBPTS(90) - R(90) - R(90) - R(90) - R(15) - REL(15) -		/ NOWWOO		XNOSE	. XTAIL	•		•	XB1N(2,35		MODE	2	
2 JTAIL ALPHAR NBPTS(90) R(90) R(90) REMIX(90) CHX(15) CHX(15) REL(15) REL(16)				NBMDS	. JBUP(2)	•	JBDN(2)	•	NOSE		AQUE		
3		2		JTAIL	. ALPHAB	•	NBPTS(90)		106)		A008	4	
## GFK(15)		3		KBMX (90)	· LMN	•	LMX	•	AFK(15)	•	Ados	2	
CFL(15)		•		BFK(15)	. CFK(15)	•	AFL(15)		BFL(15)		AGO	9	
### ACL(2)		5		GEL(15)	. ABL(15)	•	BBL( 15)		(SL(15)		AGON	1	
7		9		ACL(2)	• BCL(2)	•	CCT(5)		BTYPE		· Ague		
## NRHU		1		XPRU(90)	. XPBL (90	•	DZRBU(90)	•	DZRBL (90)		HEN 1		
## PRINTERS PRINTERS PROMISES		•		NRHI	. NRBL	•	YRB		DBBD		A A OU	0.	
A REIN(2,35) XNDSEX XTAILX YOB  CDMMDN / RODV2 / FX(30,90) FY(30,90) FY(30,90)  1		6		ZRRIL		. 10	JNDSEX		JAILX		300v	-	
COMMON / BODVZ / FX(30,90) , FY(30,90) , FZ(30,90) , MBPTSX(30) , LHOD(30,90) , LBU(20,90) , LBU(20,90) , LBU(20,90) , LBU(20,90) , LBU(20,90) , LBU(20,30) , CPS(20,90) , LBDX(20,30) , LLBLX , LLBLX , LLBLX , RRMAXX , LLBL , LLBU , LLBLX , LLBLX , RRMAXX , LRBL , LBU , RRS		•		RB IN (2,35)		•	XTAILX	•	408	•	TXCYA	1	
1 KBRTSX(30) LADE(20,90) LADE(	900	COMMON		FX (30 . 90)		. (0	FZ (30,90)				OME IX	.3	
2 NBPTSX(30), LBDD(30,90) 3 FYX(20,30) 4 CDMMON / BODV3 / KHMAX , KRMAXX , LLBL , LLBU , 1 KRS , RRCL(30,90) 2 KRS , RRCL(30,90) 3 DRFCU , DRFCL , DRFCUX , PRCLX , 5 SALPH(90) , SALPHX(30) 1 CDMMON / BODVBC / IBUD , IBLD , IBSIDE , ETARU(10) , 1 CDMMON / LARGN / PF(20,30,90) , DJK1(30,90) 2 DJK6(30,90) , DJK1(30,90) 4 DJK6(30,90) , DJK1(30,90) 5 DJK6(30,90) , DJK1(30,90) 6 ADFAB = .0174532934ALPHAB		-		KB(1) (30.90		•	LBU( 20.90		BD(20.90		OMF 1X2	7.	
3		2		NBPTSX(30)		100.		•		•	OWF IX	3	
4 FYX(20,30), CPS(20,90)  COMMON / BODV3 / KHWAX , KRWAXX , LLBL , LLBU , LLBU , RBS (130,90)  EXAMPLE		3		LBUX(20,30		•	LBDX (20 .3	101			OMF IX	9.	
COMMON / BODV3 / KHWAX , KRMAXX , LLBL , LLBU , LLBU , LLBLX , LLBUX , RBCU(30.90)  2				FYX(20,30)		106				·	OMF IX	1	
1 LLBLX . LLBUX , RBCU(30,90)	101	COMMON /	BODA3 /	KHMAX	. KBMAXX	•	LBL		TEN	•		8	
2		-		LLALX	· LLBUX	•	PBCU (30.9	100			COMF TX2	6.	
3 RECUX(20,30) , RECLX(20,30) , RECLX (20,30)		2		KBS	. PBCL (30	106.				Č	OMF IX	01	
5 SALPH(90) , SALPHX(30) COMMON / BODYBC / IBUD , IBLD , IBSIDE , ETARU(10) ,  1 COMMON / LARGN / FF(20.30.90) , DJNX (30.90)  2 DJNX (30.90) , DJNX (30.90)		*		RPCUX (20.3	101	•	RBCL.X(20,	30)			OMF 1X3	11	
SALPH(90) , SALPHX(30)  COMMON / BODYBC / IBUD , IBLD , IBSIDE , ETARU(10) ,  1  COMMON / LARGN / DF(20.30.90) , DJX1(30.90) ,  2  DJX2(30.90) , DJX5(30.90) , DJX5(30.90) ,  3  DJX6(30.90) , DJX7(30.90) ,  4  ADFAB = .017453293*ALPHAB				DRBCU	. DRBCL	•	DRPCUX		PRBCLX		OMF IX	22	
COMMON / BODYBC / IBUD , IBLD , IBSIDE , ETARU(10) , 1		2		SALPH(90)	. SALPHX (	30)					COMP TX	13	
1 ETABL(10) , ZBGD(20) , NRBS , XRBS(100) CDMMDN / LARGN / PF(20.30.90) , DJK1(30.90) 1 DJK2(30.90) , DJK3(30.90) , DJK7(30.90) , DJK71(30.90) , C	900	COMMON /		TBUD	· IBLD	•	TBSTOF		ET ARU(10)	•	OMF IX	44	
CDMMDN / LARGN / PF(20,30,90) , DJK1(30,90) , DJK2(30,90) , DJK2(30,90) , DJK3(30,90) , DJK3(30,90) , DJK4(30,90) , DJK6(30,90) , DJK6(30,90) , DJK6(30,90) , DJK1(30,90) , DJK1(30,90) , DJK11(30,90) , DJK11(30,90) , C		1		ETABL(10)			NRBS	•	<b>WBS(100)</b>	_	OMF IX	15	
1 DJK2(30,90) , DJK3(30,90) , DJK3(30,90) , DJK6(30,90) , DJK6(30,90) , DJK6(30,90) , DJK6(30,90) , DJK6(30,90) , DJK9(30,90) , DJK11(30,90)	600	COMMON /		PF (20,30,9	100	•	DJK1 (30.9	600			OMF IX	2	
2 DJK4(30.90) , DJK5(30.90) , DJK5(30.90) , DJK6(30.90) , DJK7(30.90) , DJK7(30.90) , DJK7(30.90) , DJK7(30.90) , DJK11(30.90)				DJK2(30,90		•	DJK3(30.9	100			OMF IX	91	
3 DJK6(30,90) , DJK7(30,90) , DJK7(30,90) , DJK9(30,90) , DJK9(30,90) , DJK11(30,90) , DJK11(30,		2		DJK4130.90	11	•	DJK5(30.9	100			OMF EX4	1	
C ADFAB = .017453203*ALPHAB		3		DJK6(30,90	"	•	DJK7(30.9	100			OMF IX	81	
C ADFAB = .017453203*ALPHAB				DJK8130.90	11	•	DJK9(30,9	100			OMF IX	61	
C ADFAB = .017453203*ALPHAB		2		DJK10 (30,9	100	•	DJK11(30.	106		•	OMF IX	0:	
ADFAB = .017453203*ALPHAB										-	UTBOD		
				93*ALPHAR						_	DUTRED	6	
											UTBODI	0	
15N 0011			O O	2 COMMON / C	A COMMON / BODV2 / 1 2 3 4 COMMON / BODV3 / 1 1 2 3 4 COMMON / BODVBC / 1 1 COMMON / BODVBC / 1 1 COMMON / BODVBC / 1 2 3 4 5 C AOFAB = .01745320 C WRITE(6.601)	### PARPEL   ### P	### PARPEL   PARPEL	A	NRHU	NRHU	### NRHJ	### NRHJ	### NRHJ

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PAGE

END

MOPTIONS IN EFFECT#SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(I) DUMP ADPTIONS IN EFFECT SNAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL (NONE)

62. PROGRAM SIZE =

NO DIAGNOSTICS GENERATED \*STATISTICS\*

SOURCE STATEMENTS =

\*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

148K BYTES OF CORE NOT USED

1658, SUBPROGRAM NAME =OUTBOD

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LINE VALUES  DJK1 (30.90)  DJK3 (30.90)  DJK5 (30.90)  DJK7 (30.90)  DJK1 (30.90)  DJK1 (30.90)  DJK1 (30.90)  COCU (30.90)  CWL(2)  C

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	-			VC2(20,30,2)	
	200	0023		• KZX • K3X	•
				. K6X K7X .	KBX • COMF IXES
	-	-		KINK . KMIK	a Lucio
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	20	6200		DAIA IASI. IPLUS. IBL. IL. IU / IH*.IH+.IH .IPL.IHU /	25 A100
		****	,		;
	201	9200			
	ISK	9200	,	IF (.NOT. *AF) WRITE(6.407) (PJUMP(K,JTE(K)), K=KUUI,KIMI)	FIXCA
	-	-	U		
	201	0000		KLASS = KIJT-KRUDI+1	3000
	ISN	0031			PARETNEO
	ISN	0032		CLG = -COF*XLOAD/(CAV*SSPAN)	0
	ISN	0033		EMSQ=MACHNO**2	
	ISN	0034		LWUP I = LWINGU+1	
	ISN	0035		LWLM1=LWINGL-1	0UTP 42
	ISN	96 00		DENNU=ZT(LVINGU)-ZT(LVUP1)	OUTP 43
	ISN	0037		ZTWING = (ZT(LWINGU) + ZT(LWINGL)) +.5	00TP 44
	ISN	90 38		CNU(1) = (ZTWING - ZT(LWUP1))/DENWU	DUTP 45
	ISN	90 39		CWU(2) = -(2TWING - ZT(LWINGU))/DENWU	OUTP 46
	ISN	0040		DENNE=ZT(LWINGL)-ZT(LWLM1)	DUTP 47
	ISN	0041		CML(1) = (ZTWING - ZT(LWLM1))/DENWL	00TP 48
	ISN	0042		CM (2) = -(ZTVING - ZTCLWING ))/PENW	OUTP 49
	NS	0043			
	Z	4400		3	
	ISN	0045		KREG = KROOT	
			·	Control of the contro	
			****	STATE CALCULATE PRESSURES ON BODY IF RECTANGULAR ********	***
1					OUTP
7	ISN	9000		JF (BODY .AND. BTYPE .LT. 2) KBEG = 1	
7	Z	0048			~
	V	00.00		DO SO KERPEG.KRX	
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	7	000			
	ISN	0053		"	
	ISN	9054			
	ISN	00 55			OUTP 62
	ISN	9500		IS = IS + 1	
	ISN	1500		40 PU(1S) = CUL*(PF(L,K,J) - PF(L,K,J-1)) + CUR*(PF(L,K,J+1)	OUTP
	ISN	9500		IS = LWINGU	00UTP 66
	ISN	6500		DO 45 L = 1, LWINGL	0UTP 67
	ISN	0900			0UTP 68
	ISN	0061		45 PL(15) = CUL*(PF(LoKeJ) - PF(LoKeJ-1)) + CUR*(PF(LoKeJ+1)	OUTP
				1 - PF(L,K,J))	
			U		OUTP
			***	安全的大学校 BUDY SURFACE CD 安全存在在安全存在存在存在存在存在存在存在存在存在存在存在存在存在存在存在存在存	***
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	ISN	2900		IF ( -NOT-RIDY ) GO TO 49	
	ISN	9000		IF (BTWF, 67.1) GO TO 49	
	ISN	9900		IF(K GE CKROOT) GO TO 46	CHORD 34
	ISH	9900		LLRU = LBU(K,J)	OUTP 77

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DATE 77. 795/15.32.28
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CHORD 45
CHORD 46
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00TP 103
FIXUP 7
00TP 105
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                                                                               OUTP
                                                                                                                                                                                   OUTP
                                                                                                                                                                                                                         CHEL(1) = (ZRBL - ZT(LBDM1))/(ZT(LLBD) - ZT(LBDM1))
 OS/360 FORTRAN H EXTENDED
                                                                                                                                                                                 CBU(1) = (2RBU - 2T(LBUP1))/(2T(LLBU) - 2T(LBUP1))
CBU(2) = -(2RBU - 2T(LBUP1))/(2T(LLBU) - 2T(LBUP1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IF(L.LT.LSIDEU) CPS(L.J)=CDE#PL(LWINGU-LLBD-L+1)
                                                                                                                                                                                                                                                                                  OPL (K.J) = CRE#(CBBL(1)#PL(L1)+CBBL(2)#PL(L2))
                                                                                                                                                                                                                                             CBBL (2)=-(ZRBL-ZT(LLBD))/(ZT(LLBD)-ZT(LBDM1))
                                                                                                                                                                                                                                                                  CPU(K.J)=COE*(CRU(1)*PU(L1U)+CBU(2)*PU(L2U))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CPU(K_*J) = CDE*(CWU(1)*PU(1) + CWU(2)*PU(2))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CPL(K_{\bullet}J) = CDE^{\dagger}(CNL(1) *PL(1) + CNL(2) *PL(2))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IF(L.GE.LSIDEU) CPS(L.J)=CDE*PU(L-LSIDEU+1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            XOC(K.J) =(X(K.J) - XLFW(K))/ CDPDW(K)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IF(PL(15) .LT. SONP) GO TO 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IF(PU(IS) .LT. SONP) GD TO 47
                                                                                                                                                                                                                                                                                                                                                                                           PF(K .GT .KROOT) GO TO 49
                                                                                                                                                                                                                                                                                                                                                   COMPUTE SIDE WALL CPS
                                                                                                LI = LWINGE - LLBD + 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COLP TT = 21.5/2T(LMAX)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSIDEU-LWINGU-LLBD+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DO 47 L=LWINGU . LMAXI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSONU(K, J) = LWINGU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LSONL(K.J) = LWINGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LSONE (K.S) = L - 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IF ( Y AW) KLP IN=K 8BL
                                                                                                                                             LIU-LLBU-LWINGU+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                    LSIDE=LBU-LLBD+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LSONU(K,J) = L+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DO 48 L=2 .LWINGL
                                           LBUP1 = LLBU + 1
                                                                                 LBOMI = LLBO - 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DO 90 L=1,LS10E
                                                              LLBD = LBD(K.J)
 001
                                                                                                                                                                                                                                                                                                                                                                                                              LEU-LBUCK. J)
                                                                                                                                                                                                                                                                                                                                                                                                                                  LEBO = LBD (K.3)
                                                                                                                          12 = 11 + 1
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                                                                                                                                                                  L2V=L1U+1
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OUTP

OUTP 145 140 OUTP 150 CHOP D 53 INPT X360 CHORD SS OUTP 152 OUTP 153 CHORD S6 CHOPD 57 ABUNN130 ABUNNIBS **DUTP 143** ABUNNI31 ABUNNIBB ABUNNI 34 OUTP DUTP OUTP OUTP PRITE(6,401) J.X(K,J),XOC(K,J),CPU(K,J),CPL(K,J),EMU,EML,DCP. NCPU = NAX - CPU(K, J) #COLPCP + .5 NSONU = ZSONUMCOLPZT + NAX + .5
NSONL = ZSONL\*COLPZT + NAX + .5 MOPL = NAX - CPL(K.J) +COLPCP IF (NEND-GT-LSTDE) NEND=LSTDE 1F(.NOT.BODY) GO TO 98 NAMX=(LSIDE-1.)/10.+1. DCP = CPL (K . J) - CPU(K . J) NSTRT=(NRN-1.)\*10.+1. = IPLUS LINE (NSONL) = 1AST LINE (NSONU) = 1AST 1 ZSOMI, ZSONL , LINE DO 95 NAN=1.NUMX = 10 NEND=NSTP T+9. MRITE(6,410) LINE (NCPL) LINE (NOTO) LINF (NAX) 65 CONTINE 70 CONTINUE

U

0177 0178

ISN

0173 0175 0176 0182

0183

ISN ISN

0163 9910

SN

0165 0167 0168 61169

ISN

(LL .FQ. LWINGL) ZSONL = 0.0

	LEVEL	2.2	(SEPT 76)	63	ООТЬ	0357360	OS/360 FORTRAN H EXTENDED	EXTENDED	DAT	DATE 77.295/15.32.28	2.28	PAGE
	ISN	0187		WRITE(6.	PRITE (6.411) (ZT (LLBL-1+L), L=NSTRT, NEND)	SN= 1. ( 1+1.	TRT . NEND)			ARINNIAS		
	ISN			WRITE(6.412)	412) (L.L-NSTRT,NEND)	T.NEND)				ABUNN136		
	ISN	0189		DO 95 J=2 JMAX1	2.JMAX1					CHOPD 50		
	Yen	8		ST BOH IS	I BOT BOLKBOOT					CAUDON 42		
	100	010		OK WOTTER	MOTTE (6.97) 1. YOC (KBONT . 1) (CBS() . 1) (1 =NSTBT . NEND)	Paris Market	SW= 1.11 - 11	TOT MEND		ABINING 27		
				0	The state of the s			10000		10000		
	101	2610			9.11110.97					AHUNNISB		
	ISN	0193	•		FURMAT(111X+3HZT=+11F10+3)	.3)				FIXCYASI		
	ISN	3 50	•	412 FORMAT(4)	FORMAT(4x,1HJ,6x,3HX/C,3X,2H.=,14,10110)	. 3X . 2H. = .	14.10110)			ARUNNIAO		
	ISN	0195		98 CONTINUE						CHORD 66		
	ISN	6196	*	410 FORMAT(1)	FORMAT(1H1//10X, 26HS IDE WALL CP DISTRIBUTION	E WALL CP	DISTRIBUT	10 NOI		CHORD 67		
			v							CHORD 69		
			***	SASSE COMPU	TE FORCES AND	MOMENTS *	********	Ceeeeeee COMINTE FORCES AND MOMENTS 卡卡卡卡拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉拉	*********			
			v									
	ISN	15N 0197		CALL FURCE(CLG)	תבו כר פ)					18M 54		
			v							18M 55		
			C**2	***** CALL	C****** CALL GRAPHICS PACKAGE FOR PLOTTED DUTPUT	IGE FOR PL	OTTED DUTP	10		18W 56		
			U									
	ISN	15N 0198		IF (IPLO	IF (IPLOT) CALL GRAPH(CPU,CPL)	CPU,CPL)				18M 58		
			U							BLOUTU14		
			***	C****** MAKE	DATA DECK FOR	3-0 B.L.	CALCULATIO	DATA DECK FOR 3-D B.L. CALCULATION ************	*********	*BLOUTUIS		
			v							BLOUTUT6		
	ISN	ISN 0200		IF(IHLOUT)	T) CALL BLINT	A 100 A 100 A				BLOUTU17		
			U							OUTP 171		
			**3	Cassass F O R	MATS ****	********	********	非常是非常非常的的。 S	********			
			v									
	ISN	ISN 0202	*	400 FURMATE	141 .2X . 24K = . 12 . 3X . 1845PAN STATION	.3X.18HSP	AN STATION	ETA= .F8 .5 .5X.		CHORD 70		
				4	2HY= .F10.5.34X.6HEP+++.34X.	**** 34X.				CHOPD 71		
				16HCP	/ 87X-12HZSON	IC LOWER .	22X - 12HZS0	/ 87X-12HZSONIC LOWER -22X-12HZSONIC UPPER /2X-1H.1-7X-	H.J. 7X.	TABTXAAT		
				21HX - 5X - 3	TX/C.7X.3HCPU.	7X THEP	KX - CHMI - KX	21HX - SX - 34K/C - 7X - 3HCPU - 7X - 3HCPL - 6X - 2HM - 6X - 2HM - 6X - 8HDF   IA CD	A CP	TAPY TOWN		
				3 2x-70	CX - NOSONICU- 3X - NOSONICI - 2X - 42411	ONTC: 22X.	42411			CAOOD 22		
	Ten	2000	•	ANT FROMATOR	ENDMAT(19.12.610.4.67.4.2610.5.269.3.3610.3.29.4641)	A - 25 10 - 5 -	259.3.3510	3.3% AEA11		DADE MIE		
1					1 10 10 10 10 10 10 10 10 10 10 10 10 10	66.01.2	21000000	TIVE TO THE TIME		PARE INST		
80	101			- CHAN	WIND SINGE STATE STATE STATE OF STATE O	NI IAL JUR	P A I IKAIL	ING EINE / )		21 4100		
)	ISM		•		EX. 6E12.41					OUTP 180		
	ISN			RETURN						OUTP 181		
	ISN	0207		9						0UTP 182		
*	DFT101	2 2	EFFECT*	OPTIONS IN EFFECT *NAME (MAIN)	DPT IMIZE(2) LI	NE COUNT ( 5	5) SIZE (MA	DPT IMIZE(2) LINECOUNT (SS) SIZE (MAX) AUTODBL(NONE)	•			
*	PTIO	NI S	EFFECT	COPTIONS IN EFFECT SOURCE EBCD	IC NOLIST NODE	CK OBJECT	NOMAP NOF	IC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSE TERM FLAG(1) DUMP	TXREF ALC	NOANSF TERM F	LAG(1) DUN	<u>.</u>
	TIVE S	STATISTICS*		SOURCE STATEMENTS	"	206. PROGRAM SIZE	>17E =	5556. SURPROGRAM NAME		= 00 TP		
*	STATE	*STATISTICS*		NO DIAGNOSTICS	GENERATED							
	****	END	I COMP I	SERVER FIND OF COMPILATION SERVER				20 740+	TEC OF CO	Cast Total Good of Cast Many		
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DATE 77.295/15.35.34

RE QUESTED OPTIONS OPT(2) . NOMAP

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NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE	SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTWT NOXREF ALC NOANSF TERM FLAG(I)
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	SOURCE EBCDIC NOLIST NOVECK OBJECT NOMAP NOFORMAT GOSTMT NOX	NODECK OBJE	CT NOMAP NO	FURMAT GUST	MT NOXREF ALC	EBCDIC NOLIST NOBECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TEPM FLAG(1) DUMP
ISN 0002	SUBROUTINE FORCE (CLG)	(CLG)				
	C CONSTANT THIS SUBBRITINE CALCULATES STATEMENT METALLINES	F CALCINATES	STOCES ***	****	***********	FORCE 3
	v					
1SN 0003	DIMENSION	DCP(90)	(06) X (00)	• DCPS(90)	• ONCB(30)	COMF 1165
TEN MORE	COMMON A MEBI	VAC 120.00	xc. (30)	100 02 000 002		96 HOI
	7000	ZDQ_(30.90)		CPU(30-90).	). CPL(30,90).	
	8	ZLE(30)				
1SN 0005	COMMON / LARGN /	PF (20 . 30 . 90)	•	. DJK1 (30,90)	. (0	COMF IX45
	-	DJK2(30,90)		. DJK3(30.90)	. (0	COMF 1X46
	2	DJK4 (30,90)		. DJK5(30.90)	• (0	COMF 1X47
		DJK6(30,90)		• DJK7(30.90)		COMF TX48
	• (	DJK8(30•90)		. DJK9(30.90)		COMP INCO
2000		DAKIO ( 30 . 90 )		. DJK11130 •90)	106	COMP IXSO
ואו מממם	COMPLEA INIER	XIII (OU)	X1C(90)	100117 ·	FTAL (30)	INTER C
	. 0	ETAC(30) .	ETAR(30)	· COEU	COFL	INTER 4
	m	ZCW	ZI.W.	. ZRVL	. ZCML	INTER 5
	•	PDUM(30)	EDUM(30)	NI WX .	* XMAX	INTER 6
	v	YMAX .	ZMAX	. VMIN	. ZMIN .	INTER 7
	•	Z.W.	ZRW			INTER 8
ISN 0007	COMMON / INDEX /	JMAX .	KMAX	· LMAX	. KTM1	INDEX 2
	•	KTIP .	KTIPI	. JWLE	. JE(30)	INDEX 3
	2	JATE .	JTE (30)	. LWINGL	. LWINGU	INDEX 4
	B. State of the st	JMAX1 .	KMAX1	. LMAX1	. KROOT	. COMF 1X 1
		20				INDEX 6
15N 0008	COMMON / PARM /	٠.	. A2	. A3	** .	PARM 2
	•	. YS	GAMMA	. MACHINO	• COE	PARM 3
	2	3	EMEXP(2)	· CK1(30)	· CK2(30)	PARM 4
	n	CK3(30)	CK4(30)	. CK51(30)		COMF IX10
	•	CK52(30,90)		· CK1X(30)	• CK2X(30)	COMF TX 11
	'n	BLOL .	WCDE			COMF 1X12
15N 0009		MACHNO				COMF IX13
ISN 0010	COMMON / ICO /	DE 1(90)	DE2(90)	. DE3(90)	· DH1(90)	2 021 ·
		DH2(90)	DH3(80)	· 04.1(90)	• 04.2(90)	F CO 3
See of the last		DC3(90)				<b>↑</b> 027
15N 0011	COMMON / XACDE /	X(30,90)	XIY(30,90).		•	COMF IX18
	-	XIV3(30,90)		• XX(30)	•	COMP IX19
	-	X17K (30,90)				COMF 1X20
15N 00 12	COMMON / WING /	WOOT.	XEER	. XTER	· MIP	MING 2
	TOTAL STREET,	א בו	XTET	. SREF	. SWEEP	INPTX 7
	81	MEI	WEI(10)	. XLE1(10)	. STRUE	INDIX 8
	•	MTE!	VIE1(10)	• XTE1(10)	SCHOS	6 XIANI
	• (	CROOT	SSPAN	· THICK(II)	- ZWNGWL	INDIX 10
	n v				· NIESI	AIRFUILS
	۰.۱	751100	NOXI II		. 4 5 1 30 1 1 1	AIRFOILS
		***************************************				TI VILLE

LEVEL 2.2 (SI	(SEPT 76)		FORCE	092/30	O FORTRAN H	EXTENDED	DATE	E 77.295/15.35.34
	8			XLEW(30) .	CORD(30)	CORDW(30) .	CORDIN(11).	MING
	6			XTE(30) .	RFACT .	CMEAN .	XTEW(30)	WING II
	*			· OSN	NS1	KX0(12) .	KX1(12)	AIRFOIL8
	•			NX0(12)	NX1(12)	. YX0(12-10).	vx1(12.10)	AIRFOILS
				xx0(12-10)-	xx1(12,10).	DXBOLIDI	OXPICION	ATPENTED
	, ,			DY TO STORY	NAT!	** 00.00	M. 101 F	*********
	۱ د				1311111		2000	Timber of the state of the stat
	<b>J</b>			·	WE HALSO	AICHAISO!	CURDA	CHORD
	<b>L</b>				*OK	XLEWP(30) .	XTEWP (30)	VSCFX3 1
	ی			KSWICH				VSCF X3 2
ISN 0013	8	COMMON /	MINGBC	/ ZLM	ZRWU	TWIST(30) .		COMF TX42
	-			WBCL (30,90)	•	WBCU (30 . 90)		COMF 1X43
ISN 0014	8	COMMON	SCRACH	/ MU(20.30.2)		POLD (20,30,3)		. COMF 1X37
	-			VC2(20,30,2)	•	vc(20,30,2)		COMF 1X38
ISN 0015	8	COMMON	/SKINFR/	CFVISC .	GTT.	CFTL		SKINFR 2
1SN 0016	8	COMMON	/ BDDV1 /	WNOSE .	XTAIL .	· NB IN(2)	XBIN(2,35)	. BODV 2
	-			· SODEN	JBUP(2)	, JBDN(2) .	NOSE	, BODV 3
	2			JIAIL .	ALPHAB .	. NBPTS(90) .	R(90)	4 A000
	9			KBMX(90) .	CMN .	· LMX	AFK(15)	BODY S
	•			BFK(15) .	CFK(15)	AFL( 15) .	BFL(15)	9 AGON .
	S			GFL(15) .	ABL(15)	. BBL(15) .	CBL(15)	, 800v 7
	•			ACL(2)	BCL(2)	. CCL(2)	BTYPE	BODV 8
	-			xRBU(90) .	XRBL (90)	DZRBU(90) .	DZRBL(90)	CHEN! 1
	8			NRBU .	NRBL .	. YRB	ZRBU	BODY 10
	•			ZRFL .	KBMXX(30)	. JNOSEX .	STAILX	, BODV 11
	•			RB IN (2,35),	XNOSEX .	. XTAILX .	YOB	FIXCY4 1
15N 0017	ē	COMMON	/ BODV2 /	FX(30.90) .	FY(30,90)	FZ(30.90)	The second second	COMF TX23
	-			KBCD (30.90)		LBU(20.90).	LBD (20.90).	COMF IX24
	~			NBPTSX (30).	LBOD (30,90)	•		COMF 1X25
	6			LBUX (20,30)		LBDX (20 +30)		COMF 1X26
	•			FYX(20,30).	CPS(20,90)			COMF IX27
15N 00 18	00	NOW	COMMON / BODV3 /	KBMAX .	KBMAXX .	. LLBL .	LLBU	. BODV 18
	-			LLBLX .	LLBUX .	RBCU(30.90)		COMF TX29
	8			KBS .	PBCL (30,90)			COMF 1X30
	6			RBCUX (20,30)	•	RBCLX(20+30)		COMF 1X31
	•			DRBCU .	DRBCL .	DRBCUX .	DRBCLX	COMF IX32
	c			SALPH(90) .	SALPHX (30)			COMF 1X33
15N 0019	B	COMMON /	BODYBC	· IBUD .	TBLD .	. IBSIDE .		. COMF 1X34
	-			ETABL(10) .	ZB0D(20)	NRBS .	XRBS(100)	COMF 1X35
SN 0020	ē	COMMON	/ LABEL /	TITLE (20)				IBM 2
15N 0021	ē	COMMON	FLAGS /	. ASIGI	ISAVE .	. IPLOT .	MSHINT	FLAGS 2
	-			SOLV .	WBCPRT .	BBCPRT .	RODY	FLAGS 3
	2			FCR .	ISPAN ,	IF INR .	ICRUDR	INPTX 1
	3			EXTMSH .	REMESH .	IMAPR .	YAW	INPTX 2
	•			IBUMP .	IVISC .	. ITWIST .	1FOILT	INPTX 3
	s			1BOD IN	AX ISAM .	AREA .	IBLOUT	INPTX 4
ISN 0022	9	LDGICAL		. ASI OI	ISAVE .	. IPLOT .	MSHINT	COMF IX 4
				SOLV .	WBCPRT .	BBCPRT .	BODY	COMF IX 5
	2			FCP .	ISPAN .	IF INE .	ICRUDR	COMF IX 6
	m			EXTMSH .	REMESH .	IMAPR .	YAW	COMF IX 7
	•			I RUMP	IVISC .	. ITWIST .	FOILT	COMP IX 8
	9			IBOD IN	AXISAM .	AREA .	IBLOUT	COMF IX 9
ISN 0023	8	NOW	COMMON / YAWOPT	. KIX	K2X	. K3X	KAX	COMF IX87
	-			K5X	K6X	. K7X	КВХ	COMF TX88

ISN 0067		FURCE 69
	CALL SIMP (CNW, ETA (KROOT), CNCR (KROOT), KNDX, 1ERR)	FORCE 70
15N 0069	ONW = ONW/SSPAN	CHOP D RO
	- 11	
	- 11	
	CALL SIMB (CLICKLE TAKEDOT), CLICKDOT), KNDX, 1600)	
	•	
12N 00 11		
8200	CALL SIMP(CBI, ETA(KPOOT), CBINT(KROOT), KNDX, 1ERR)	BUNNY 15
15N 0079	CB=0.25/VTIP/(YTIP-VR)*CBI	BUNNY 16
15N 0080	EDRAG = 1.	18M 65
	C wellow in specific, but the contract of the	FORCE 80
18N 0081	GO TO 140	
	C INFINITE YAMED WING OPTION	
2000 NSI	150 CNW TING THE NAME OF THE N	
	CANTICOLOR	
1000 NOI	THE STATE OF THE S	
5800 NSI		
	( )	
TSN 0087	140 CONTINUE	744 247
	C中华中华中华 DVIPUT FURCE DATA 米布布布布布布布 古本中市中市中央市场中央市场中央市场市场市场市场市场市场市场市场市场市场市场市场市场	Ü
	Company of the compan	FORCE 82
15N 0088	WRITE (6.450)	FORCE 83
ISN 0089	WRITE (6.457) TITLE, CAV, XMOM	BUNNY 17
	WRITE(6.45R) MACHNO. ALPHAW, ALPHAR	ECHO +0
	JF(YAW) 60 TO 215	YAW 269
	WRITE(6.456)	FORCE 85
15N 0094	WRITE(6, 451)	FURCE 86
	DO 200 N = KROOT + KTM1	FORCE 87
	C = CORDW(N)/CAV	CHORD 86
	VS=ETA(N)/VIIP	BUNNY 18
	CAX=CACB(N)/C	BUNNY 19
	CNX=CNCB(N)/C	BUNNY 20
	XCP (N)=5	BUNNY 21
	XCP (N)=XCP(N)/C	BUNNY 22
	CF=CL(N)/C	ARUNNIA1
	CR=CD(N)/C	ABUNNI#2
	CD=CMC2(N)/C**2	ABUNN143
	XCP(N)=XMOM-CO/CF*CMPW(N)	VSCF X427
15N 0106	xCP(N)=(xCP(N)-xLEW(N))/COPDW(N)	VSCF X428
15N 0107	200 WRITE (6.452) N.ETA(N) .YS.C.CNCB(N) .CACB(N).CL (N).CD(N).CMC2(N).	ABUNNIAA
	1 CNX *CAX.OF .CR .CD .XCP(N) .N	ABUNNIAS
	ARPEF=2.04YIP/CAV	BUNNY 28
	ARTRUE=2.0*YIP**2/STRUE	BUNNY 31
15N 0110	CFXU=0.0	ABUNNIA6

GRUMMAN AEROSPACE CORP BETHPAGE N Y
AN AUTOMATED PROCEDURE FOR COMPUTING THE THREE-DIMENSIONAL TRAN--ETC(U)
FEB 78 W H MASON, D MACKENZIE, M STERN F33615-75-C-3073 AD-A055 109 UNCLASSIFIED AFFDL-TR-77-122 NL 3 OF 9 AD A055 109

L	LEVEL	2.2	(SEPT 76)	FURCE 05/360 FURTRAN H EXTENDED DATE	DATE 77.295/15.35.34
	ISN	2110	IFLIVISC	IF(IVISC) CFXU=CFTU	ABUNN148
	ISN	4110	1F( IVISC	JF(IVISC) CFXL=CFTL	ABUNN149
	ISN	91 10	CFV1SC=C	CFVISC=CFXU+CFXL	ABUNNISO
	ISN	6117	CDWP=CDW		ABUNNISI
		9110	CDW=CDWP+CFV1SC	PACFVISC	ABUNN152
		9110	XCPX=XMD	XCPX=XMOM-FCMW/CLW)+CAV	VSCF X429
		0120	DEL CPY=0.		VSCF X430
		0121	DELCP4=0.	•	VSCF X431
	ISN	0122	NO 700 K	700 K=KR00T,KTM1	VSCF X432
	ISN	0123	NX=JTE(K	NX=JTE(K)-JLE(K)+1	VSCF X433
		0124	DELCP=0.		VSCFX434
	ISN	0125	DO 701 J=1.NX	J=1.NX	VSCF X435
	ISN	0126	JI=J+JEE(K)	F(K)	VSCFX436
		0127	DELCP2=CI	DELCP2=CPL(K,J1)-CPU(K,J1)	VSCF X437
		0128	701 DELCP=DEI	DEL CP=DEL CP+DEL CP2	VSCF X438
		0129	DELCPY=D	DELCPY=DELCPY+DELCP	VSCF X439
	ISN	0130		DELCP3=DELCP+ETA(K)	VSCF X440
		0131	700 DELCP4=DI	DELCP4=DELCP4+DELCP3	VSCFX441
		0132	WCPX=DEL	MCPX=DELCP4 /DELCPY	VSCF X442
	ISN	0133	WRITE (6	WRITE (6.454) SREF, STRUE, SXPOS, ARREF, ARTRUE, CNW, XCPX, YOX, CAW,	ABUNN153
			1 CFXU,CM	I CFXU.CMW.CFXL.CLW.CFVISC.CL.G.CDWP.CDW.CB	=
		0134			
		0135	215 CONTINUE		
		0136	CFV1SC=0.0	0-0	YAW 272
	ISN	0137	IF( IVISC)	C) CFVISC=CFTU4CFTL	YAW 273
	ISN	0139	CDWP=CDW		
	ISN	0140	COW=COWP+CFVISC	P+CFVISC	YAW 275
	ISN	0141	WRITE(6,	MRITE(6.460) CNW.CAW.CLW.CMW.CFVISC.CDWP.CDW	YAW 276
	ISN	0142	460 FORMATC//10 X SHCN	//10 x .6 HCN = . F10 .5 / 10 X .6 HCA = . F10 .5 / 10 X .6 HCL = . F10 .5 / YAW	
			1 10 X +6 HCM	=.F10.	YAW 278
			2 6HCD	=,F10,5/1H1)	YAW 279
	ISN	0143	450 FORMAT (	(1H1,10x,57HGRUMMAN AMES TRANSONIC VISCOUS WING BODY ANALY	SBUNNY 34
			11S PRUGR.	11S PROGRAMY/15X,30HWILLIAM F. BALLHAUS (USAAMRDL),11X,16HWILLIAM HVSCFX443	HVSCF X443
1			2. MASON	2. MASON/15X.32H.UVANITA FRICK (INFORMATICS INC.). 9X.19HDONALD A. MVSCFX444	4VSCFX444
81			3ACKENZIE.	34CKENZIE/15X, 25HNASA AMES RESEARCH CENTER, 16X, 13HMARK A. STERN/15XVSCFX445	KVSCF X445
5			4.25HMOFF	4-25HMDFFETT FIELD. CALIFORNIA.16X.65HAERODYNAMICS SECTION. GRUMMANVSCFXA46	VVSCF X446
			5 AEROSPA	AEROSPACE CORP BETHPAGE, NEW YORK//10X,75HPROGRAM DEVELOPED FORVSCFX447	SVSCF X447
			6 THE AIR	FLIGHT DYNAMICS L	VSCF XAAB
	ISN	0144	451 FORMAT (/120HK	Y ETA C/CAVE C#CN/CAVE C#CA/CAVE C	AABUNNI 55
			INE CACDA	IVE C+CD/CAVE C+CM/CAVE CN CA CL CD CM XCP/C	XCP/C ARUNNIS6
	-		24/)		ABUNNIST
	ISN	ISN 0145	ASZ PUKMAI	ADD TORMAN ( ROATEGOOFTO-GOOFTO-GOOFTO-GOODX-T	ABUNNISB
	-		1 F7.3.3X	1 F7-39-3X-3F 7-39-86-47-7-39-1X-1Z)	ABUNNESS
	ISN	ISN 0146	454 FORMAT (	454 FORMAT (/10X,24HTOTAL FORCE COEFFICIENTS/63X,5HSREF=,F9,3,5X,	FIXCMSS
			I OHSTRUE	OHSTRUE - F 9.3.5X . MAE XPOSED - F 9.3/10X.15H(BASED IN SKEF ).58X.	ABUNNIBI
			Z THAR RE	THAR REFERENCES SANDER TRUE SOFT SAND SOFT SOFT SOFT SOFT SOFT SOFT SOFT SOFT	ABONNISZ
			3 F12.4.4	FIZ.4.4X.4HYCD=0FIZ.4/10X.4HCA =.FIZ.506IX.4HCDF=0FIZ.4.	ABUNNISS
			4 THI LIPPE	THUMPER VIOX 4 HCM = FIZ 55 STATE OF = FIZ 54 FILL ONER VIOX STATE OF THE CONTRACT OF THE CONT	ABONNIGA
			5 4HCL =1	4HCL =.FI2.5,2X,30H(SURFACE PRESSURE INTEGRATION),29X,4HCDF=,	ABUN NI 65
			7 F8.4 /1	F8.4 /10X.4HCD ==F12.5.61X.4HCB ==F11.3.1X.	ABUNNE 67
			8 29HUNS	29HUNSWEPT ROOT BENDING-MOMENT)//	ABUNNIGE
			1 4Km (84 198 5		FURCE 94

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PAGE

ABUNNIGA ABUNNI GA ABUNNI GA ABUNNI GB FORCE 94

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DATE 77.295/15.35.34	AR FORMATS STANDARD SECTION SE	FORCE109
EXTENDED	***************************************	1 596
05/360 FORTRAN H EXTENDED	**********	DISTRIBUTIO
08/360	*************	ANVISE FORCE
FORCE	FORMATS	FORMAT ( 79X+28HSP ANVISE FORCE DISTRIBUTIONS
2.2 (SEPT 76)	********	456 FOR
LEVEL 2.2		15N 0147

	Constant F O R M A T S sheetstatetst	FORCE 95
		FORCE 96
ISN 0147	456 FORMAT ( 79x 28HSP ANWISE FORCE DISTRIBUTIONS )	FORCE109
15N 0148	457 FORMAT(10x, 20A4, TX, 24HREFERENCE CHORD IS CBAR=,FB.3/97X.	18H 8
	1 24 HIDMENT OF 1GIN IS XWING = (FB.3)	ABUNN170
15N 0149	458 FURMAT ( /10X, THRACH = .FG. 3.5X, 9HALPHAN = .FG. 2.	ECHO 42
	1 5x,9H4LPHAB = ,F6.2)	ECHO 43
ISN 0150	MELLINAM	FORCE110
ISN 0151		FORCETTI

ADPTIONS IN EFFECT SNAME (MAIN) OPTIMIZE(2) LINECOUNT (55) SIZE (MAX) AUTODBL (NONE)

ADPTIONS IN EFFECT+SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP

150 . PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*

124K BYTES OF CORE NOT USED

5018. SUBPROGRAM NAME = FORCE

REQUESTED OPTIONS OPT(2), NONAP

LEVEL 2.2 (SEPT 76)

PTIONS	PTIONS IN EFFECT	CT NAME (NATN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE) SOUNCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NORREF ALC	NOAMSF	TERM FLAGEES DUMP	
ISN	2000	SUBROUTINE SIMP(R.X.V.N. IER)	SIMP	~	
ISN	6000	10M	SIMP	n	
ISN	*000	R-0.0	SIMP	•	
ISN	9000	JF(N-GT-1) 60 TO 1	SIMP	•	
ISN	2000	168=2	SIMP	•	
ISN	9000	RETURN	SIMP		
ISN	6000	1 Ff(Xf1),E0.X(2)) G0 T0 12	SIMP	•	
ISN	1100	1 - X = 1 - X - 1	SIMP	•	
ISN	00 12	JF(N.E0.2) GO TO 13	SIMP	10	
ISN	*100	IF(X(1)-4.7-x(2)) G0 T0 3	SIMP		
			SIMP	12	
		C****** TEST FOR X TO BE MONOTONICALLY DECREASING ******	* STMP	13	
			SIMP	:	
ISN	9100	00 2 1=2.MI	SIMP	15	
ISN	00 17	IF(X(I+1),GE-X(I)) GO TO 12	SIMP	16	
ISN	6100	2 CONT INLE	SIMP	2	
ISN	0020	80 TO S	SIMP	13	
		·	SIMP	20	
		C****** TEST FOR X TO BE MONOTONICALLY INCREASING ************************************		2	
			SIMP	21	
ISN	0021	3 00 4 1=2.4491	SIMP	22	
ISN	0022	JF(x(17+1)-LE-x(1)) GO TO 12	SIMP	23	
ISN	0024	◆ CONTINUE	SIMP	3	
ISN	9025	5 1012=14-2	SIMP	23	
ISK	9200	JF(MOD(N+2)-E0+0) GD TD 14	SIMP	8	
ISN	900	ì	SIMP	27	
ISN	6200	M=1	SIND	8	
ISM	0030	6 S1=x (N1+1)-x(N1)	SIND	3	
ISN	0031	S2=x(N1+2)-x(N1+1)	SIMP	30	
ISN	0032	S3=X (1911) -X (1912)	SIMP	31	
ISN	0033	S4=X{N}-X(NH1)	SIMP	32	
ISN	0031	R=(2.451442451452-524421/5144(N1)+(2.454442+53454-53445)/5441(N)	SIMP	R	
ISM	0035	WI=N1+1	SIMP	*	
ISN	0036	00 7 1=11,0M1,2	SIMP	35	
ISN	0037	- 11	SIMP	36	
ISN	9036	\$2=x(I+1)-x(1)	SIMP	31	
ISN	0039	7 R=R+(S1+S2)**3/(S1*S2)**(I)	SIMP	**	
ISN	0040	1F(N-LT-5) GO TO 9	SIMP	R	
ISN	0042	X1=N1+1	STMP	•	
ISM	0043	DO 8 1=N1.NM2.2	SIMP	7	
ISN	0044	S1=x(I-1)-x(I-2)	SIMP	*2	
ISN	9000	S2=x(1)-x(1-1)	STMP	*	
ISN	9400	S3=x(1+1)-x(1)	SIMP	:	
ISN	0047	S4=X(1+2)-X(1+1)	SIMP	\$	
ISN	9400	F	SIND	*	
ISN	0040	4	SIMP	••	
ISN	0500	10 IER=1	SIMP	•	
ISN	0051	RETURN	SIMP	*	

PAGE																			
DATE 77. 295/15.36.32	90	51	52	53	35	55	26	57	8	65	09	19	6.2	63	• •	\$	99	67	*
7.	SIMP	SIND	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIMP	SIND	SIMP
DS/360 FORTRAN H EXTENDED DATE				EZOTOAL RULE FOR N=2 *********************		1/2.0			POLYNOMIAL THRU FIRST 3 POINTS AND INTEGRATE FROM ******	TO X(2) ************************************						#(2.#53+6.#Y(1)+(52##2#53-51##2#\$4)/(52#(52-51)))			
QM18 (91 TQ	12 JER≈4	RETURN	U	C****** TRAPEZOIDAL RULE FOR	U	13 R=(X(2)-X(1))+(V(1)+Y(2))/2.0	60 10 10		CASSESS FIT POLYNOMIAL THRU		U	14 S1=x(2)-x(1)	S2=x(3)-x(1)	S3=Y(2)-Y(1)	SA=Y(3)-Y(1)	P=51/6.4(2.453+6.4Y(1)+	M1=2	60 TO 6	2
LEVEL 2.2 (SEPT 76)	00 52	053				9000	990					950	150	950	650	0900	190	1062	690
N	•	ISN 0				-	ISN O									ISN 0			

\*\* COPTIONS IN EFFECT\*\*NAME(MAIN) OFTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

MOPTIONS IN EFFECT+SOUNCE EBCDIC NOLIST NDDECK OBJECT NOMAP NDFORMAT GOSTMT NDXREF ALC NDANSF TERM FLAG(1) DUMP 1422, SUBPROGRAM NAME = SIMP 62. PRICRAM SIZE = SOURCE STATEMENTS = **estatistics** 

STATISTICS NO DIAGNOSTICS GENERATED

\*\* \*\*\* END OF COMPILATION \*\*\*\*\*

156K BYTES OF COPE NOT USED

DATE 77.295/15.36.51

# REGLESTED OPTIONS OPT(2) . NOMAP

	LIRCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTNÍ NOXREF ALC NOAMSF TERM FLAG(I) DLIMP
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ME(HAIN) OPTINIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBBL(NONE)	PHAT
MAX	0
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8	

SAME OCCUPATION   SUPRICITINE   SAME OCCUPATION   SAME OCCUPATION	EMPLOT 2	ERPLOT 4	ERPLOT S	ERPLOT 6	FB04 AF 7	- 1000	0 0000	ENT OF S	EMPLOT10	ERPLOT11	ERPL OF 12	ERPLOT13	ERPLOTIA	 CONT. OF S	CKPCINIS.	EMPLOT17	ERPLOTIS	ERPLOT19	ERPLOTZO	EPPLOT21	EPPLOT22	ERPL OF23	ERPLO724	ERPLOTZS	ERPLOT26	ERPLOT27	ERPL OFZ8	ERPL (IF 29	ERPLOT30	ERPLOT31	ERPL OF32	ERPLOT33	ERPLOT34	EPPLOT35	EPPLOT36	EPPLOT37	ERPLOF36	ERPLOT39	ERPLO740	EPPLOTA1	ERPL OF 42	ERPLOT*3	EPPL OT 04	ERPLOTAS	ERPL OF 46	EPPLOTA7
가게 가게 되었다면 하게 되었다면 하는데 그는데 그는데 그는데 그는데 그는데 그는데 그는데 그는데 그는데 그	SURROUTINE ERPLOT ( 16RID , KOUNT , CE , ERRO, ERR, CR , R SDQ , RSD)	DIMENSION ERR(1) PSO(1)	DIMENSION LINE (126) - IF(6)	DATA IBCH /-15/144/-17/14/-17/14-/-19/144/				WEITE(0.204)		-			TE(1) = (-1-16 1x(CE)	286			MK = KOLNT+1	DO 100 KKK=1 •MK	K = KICK-1	DO 10 1=1,126	-	IF(MDD(K.50).NE.0) GD TD 30	00 20 1=11,111	-	-	-	IF (KICK-EG-1) GO TO 100	#=11.55.20.*ERR(K)	JF (JoLTo1) Je1	H	LINE (J)=15	J=11 -5+20 -4RSO(K)	JF (JoLTo1) J=1	= 6 (92	LINE (1)=1P				-		202 FORMAT(10X+21H INITIAL ERROR(*) 15 .E12.4.5X.	1 23MINITIAL RESIDUAL(+) IS .E12.4///)	203 FORMAT(6(15x.12.1H/.12))		FORMAT(10X, 23H ERPLOT FOR	29
																																						4		100						

HOPTIONS IN EFFECTIONANE(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

05/360 FORTRAN H EXTENDED

LEVEL 2.2 (SEPT 76)

49. PROGRAM SIZE =

DIAGNOSTICS GENERATED SOURCE STATEMENTS =

9

\*STATISTICS\* STATISTICS.

MARKE END OF COMPILATION COCCES

190

1776. SUBPROGRAM NAME =EPPLOT

156K BYTES OF CORE NOT USED

DATE 77.295/15.36.51

OPT(2), NOMAP

RE OUE STED OPTIONS

```
NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOPAL(NONE)
SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
                                                                                                       ATPFOILS
                                                                                                                AIRFOILS
                                                                                                                                                                    TX1(12-10). APRF 01L9
                                                                                                                                                                              DXR1(12) . AIRFOITO
                                                                                             INPTX 10
                                                                                                                                                          . AIRFOILS
                                                                                                                            XLE(30) . INPTX 11
                                                                                                                                                                                        AIRFOILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCALE 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FIXC VITE
                                                                                                                                                                                                  CHORD 1
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                                                                                                                                                                                                                      VSCFXB
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                                                                                                                                                                                                                                                              9080
                                                                                                                                    COPDIN(11). WING
                                                                                                                                                XTEM (30) . WING
                                                                                                                 XF(180.11).
                                                                                                                                                                                                            XLEWP(30) , XTEWP(30)
                                                                                                                                                                                                                               . XDUM2(90)
                                                                                                                                                          KX1(12)
                                                                                                                                                                                        MIPLE
                                                                                             ZWNGWL
                                                                               SKPOS
                                                              SWEEP
                                                                                                       MENST
                                                                                                                                                                                                  . CORDX
                                                                       STRUE
                                                                                                                                                                                                                                                                                                       . (2(1)).XDUM6(181))
                                                                                                                                                                    vx 0( 12 - 10) .
                                                                                                                                                                              DXR0(12) .
                                                                                                                                                                                                  XTEWX(30)
                                                                                                                                                                                                                                DXU(90) , DXL(90) , XDUM(90) XDUM3(90) , XDUM5(90)
                                                                                             THICK(11)
                                                                                                       THE TP(11)
                                                                                                                                      CORD W(30)
                                                                                                               INLX(11)
                                                                        XLE1(10)
                                                                                   XTE1(10)
                                                                                                                                                          KX0(12)
                                                                                                                                                                                       AL PHAN
                                                                                                                                                CHEAN
                                                                                                                            MOMX
                                                                                                                            ZF(180.11). KSWTHS(11).
                                                                                                                                                                               XX0(12.10). XX1(12.10).
                                                                                                                                                                                        DXT1(12) .
                                                                                                                                                                                                  XLEWX (30) .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHPD = AMINI (XF(1,N)-XFLE,XF(INT,N)-XFLE)
                                                                                                                                      XLEW(30) . COPD(30)
                                                                                                      NPAN . YP(11)
                                                                        AET(10)
                                                                                   YTE1(10)
                                                                                                                                                                      . NX1(12)
                                                                                                                                                                                                                               . DXL(90)
                                                                                                                                                                                                                                                                           . Z(180)
                                                                                             SSPAN
                                                                                                                                                . RFACT
                                                                                                                                                                                                                                                                                                        (X(1), XDUM6(1))
(S(1), XDUM6(361))
                                                                                                                                                                                                                                                      XDUM6 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MF(1 oN) = (XF(1 oN) -XFLE)/CHRD
                                                                                                                                                                                        DXT0(12)
                                                                                                                                                                    NX0(12)
                                                                                                                                                 XTE(30)
                                                                                                                                                                                                   NT IPX I
                                                                                                                                                                                                                      KSWICH
                                                                                                                                                                                                                                                                          X(180)
                                                                                                                                                                                                                                                                                              5(180)
                                                                                             CROOT
                                                                                                                                                                                                                                                                                                                                                                                                    IF (DX.GT. 0.) GO TO 20
                                                                                   NTE!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DF(1 oN) = ZF(1 oN)/CHRD
                                                                                                                                                           NSO
                                                                                                                                                                                                                                                                                                                                                                                DO 10 I=2.1NT
DX = XF(I.N)-XF(I-1.N)
                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZREF = ZF(INL,N)/CHRD
                               SUBROUTINE SCALE(N)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IFLE = XF(INL.N)
                                                     COMMON / WING /
                                                                                                                                                                                                                                                                                                                                                                      = INU+INL-1
                                                                                                                                                                                                                                                                                                                                                                                                                                   INU = INT-INL+1
                                                                                                                                                                                                                                  COMMON ALEVIX/
                                                                                                                                                                                                                                                                                                                                                                                                                                             INUX (N) = INU
                                                                                                                                                                                                                                                                                                                                                                                                                                                       INCX (N) = INC
                                                                                                                                                                                                                                                                                                                                                  INU = INUX(N)
                                                                                                                                                                                                                                                                                                                                                            = INCX(N)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DO 30 1=1,1NT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NKS = NKS+1
                                                                                                                                                                                                                                                                                              DIMENSION
                                                                                                                                                                                                                                                                           DIMENSION
                                                                                                                                                                                                                                                                                                                                                                                                                         CONTINUE
                                                                                                                                                                                                                                                                                                                                        NKS = 0
                                                                                                                                                                                                                                                                                                                                                                      IN
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 OPTIONS IN EFFECT
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                                ISN 0002
                                                    15N 0003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        00 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0021
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ISN ISN NSI NSI NSI ISN
                                                                                                                                                                                                                                                                                                                                                            191
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DATE 77.295/15.37.04	FIXCVII3	FIXCVIIA	SCALE 22	DROP 3	↑ d0d0	DROP 5	DROP 6	SMOOT 9	SMOOT 10	SMOOT 11	SM007 12	SMOOT 13	SMOOT 14	SM007 15	) SMOOT 16	SMOOT 17	SMOOT 18	SM007 19	7 9090	DROP R	DROP 9	04 0000	SMOOT 20	SCA3 F 24
PA															N11**2									
05/360 FORTRAN H EXTENDED															S(1) = S(1M1)+SQPT((Ne(1, Ne(1, Ne(1, Ne))) + + + (1 Ne(1, Ne) + N									
FORTRAN P		1-7REF)								LENGTH					IM1 .N))**2									
08/360		(ZF(1.N						TURN		IN APC I					N)-XF									
SCALE	IF (MKS.GT.1) GO TO 30	ZF(1 .N) = ZREF+THICK(N) +(ZF(1 .N) -7REF)		INI.I	(F(1 .N)	F(1.N)		IF (NKS.GT.KSMTHS(N)) RETURN		*** CRORDINATE SMOOTHING IN ARC LENGTH		•••	2.1NT	-	GINI)+SORT((XF()		CALL SATH(X, INT,0,5)	CALL SWTH(Z.INT.0.5)	1 .1 NT	= x(1)	= 2(1)			
	IF (MKS.	( TIL	CONT PAGE	TNI . I=1 25 00	X(1) = XF(1,N)	Z(1) = ZF(1,N)	CONT INCE	IF (NKS.		*** COORD		5(1) = 0.0	DO 40 1=2,1NT	IM1 = 1-	5(11) = 5	CONT INCE	CALL SM	CALL SMT	DO 45 I=1.1NT	XF(1.4) = x(1)	ZF(10N) = 2(1)	CONT INCE	GO TO 25	END
163			30				35			:						•						45		
(SEPT 76)									v	•	U													
2.2	9200	0030	1600	35 00	9033	96.00	36 00	96 96				96 96	66 00	040	1400	2400	1043	**00	Wat Sa	9700	1047	9048	0046	0500
LEVEL 2.2			ISN																				ISN	

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(S) SIZE(MAX) AUTDOBL(NONE)

MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

1102, SUBPROGRAM NAME = SCALE

49. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

156K BYTES OF CORE NOT USED

# RE OLE STED OPTIONS OPT(2) . NOMAP

	NOG ()
	FLAG
	TEDM
	NOANSF
	ALC
(S)	NOXREF
TOPHECNE	GOSTMT
NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBIL(NONE)	SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TEPM FLAG(1) DUMP
) SIZE	NOMAP N
OUNT ( 55	OBJECT
) LINE	NODECK
TIMIZE	NOLIST
IN) OP	EBCD1C
NAMEIM	SOURCE
INS IN EFFECT	
Z	
SNO	

15N 0002	SUBR	SUBRIGITINE SLOPY2(XX-72.L.N.XO.NO.ZO.DZO)	STRVS101
	-	XPLM3(90) • XDUM4(90) • XDUM5(90) •	•
	N		LEVIX 4
		SETTION TO COMBITTE WING SUBFACE STORES ASSESSMENT OF GLITTE	SCUPTE S
		THIS SUBROUTINE USES SPLINE FITTING TO FIND THE FUNCTIONS	Z(X)
	•	AND DZ/DY ON UPPER AND LOWER SURFACES AT A DIFFERENT	FIXCY195
	Ü	COLLECTION OF ABSISISAS.	SLOPY2 8
	·		SLOPY2 9
	0		
	•	VALUES. SECOND, FIT Z(S) AND EVALUATE Z AT THE S-VALUES	SLOPY211
	<b>.</b> 	FOUND IN THE FIRST STEP.	SLOP Y212
	, ,	THE CALLING PARAMETERS ARE	St. OP 7274
		ARRAY OF INDEPENDENT VARIABLE VALUES TO BE CURVE	FITTED FIXCY116
	v		SL0P 7216
	2 3	22 ARRAY OF DEPENDENT VARIABLE VALUES TO BE CURVE FI	FITTED FIXCY117
	v	(GI VEN)	SLOP Y218
	٥	L NOW INAL LEADING EDGE POINT	FIXCYIE
	v	N NUMBER OF ELEMENTS IN THE X AND Z ARRAYS (GIVEN)	SLOPYZIG
	v	XO ARRAY OF INDEPENDENT VARIABLE VALUES AT WHICH WE WISH	H SLOPY220
	u	TO EVALUATE Z (GIVEN)	SL0P 7221
			FIXCY119
		ARRAY OF	
	٥	DZO ARRAY OF VALUES OF THE FUNCTION DZ/DX AS FOUND BY INTERP-	TERP - SLOP 7224
	U	CLATION (COMPUTED)	SC0P 7225
			SLOP 7226
		THIS INTERPOLATION IS ON ARC LENGTH, RUNNING FROM	
		LOWER SURFACE TRAILING EDGE TO UPPER SURFACE TRAILING EDGE	SLOPY228
15N 0004	DIME	DIMENSION XX(1), ZZ(1), X0(1), Z0(1), DZ0(1)	STRVSIO3
15N 0005	DIME	DIMENSION X(180), Z(180)	STRVS104
15N 0006	DIME	DIMENSION SA(180).SI(180).DSDX(180).DZDS(180)	SLOP 7230
15N 0007	DIME	DIMENSION DUMI(180), DUM2(180), DUM3(180)	SLOP 7231
15N 0008	E001	EQUIVALENCE (X(1), XDUM6(1)) , (Z(1), XDUM6(181))	. EOUTVI 8
		(SA(1),XDUM6(361)) , (SI(1),XDUM6(541))	. EOUT VI 9
	2	(DSDX(1), XDUM6(721)), (DZDS(1), XDUM6(901))	. EDUT VITO
	3	(DIM1(1)*XDUM6(1081))*(DUM2(1)*XDUM6(1261))	) . EQUIVILL
	•	(DUM3(1), XDUM6(1441))	EOUT VITZ
	0		St.00 Y232
15N 0009	DEUE	DFUBB(F1°F2°F3°D1°U)=(F3-F1-U*U*(F2-F1))/(U*D1*(1°0-U))	SLOP 7233
01 00 NSI		Telland Control of the Control of th	STRVSION
	XCII	) = xx(1)	STPVSIOT
			CTDVCIAD

LEVEL 2.2 (SEPT 76)	.2 (SE	PT 76	SLOPYZ OS/360 FORTRAN M EXTENDED	DATE 77.205/15.37.19	PAGE
		v		SLOP 7234	
15N 0014	•11		NOT = 20NO	\$L0PY235	
		U		SL0P 7236	
		v	CALCULATE APPROXIMATE ARC LENGTH	SLOP 7237	
ISN 00	00 15		SA(1)=0.0	SLOP 7238	
ISN 00	90 16		DO 1 1=2.N	St.0p v239	
ISN 00	0017		PM1=F-1	SLOP 7240	
ISN 00	90 00	-	SA(1)=SA(1M1)+SQPT((X(1)-X(1M1))++2+(Z(1)-Z(1M1))++2)	SL0P 7241	
		v		SL0P 7242	
		v	FIT X(SA). FIND SI CORRESPONDING TO XO. FIND DSDX.	SLOP Y243	
ISN 00	6100		Dx1 = x(2) - x(1)	SL0P 7244	
	0020		0x2 = x(3) - x(2)	SLOP 7745	
	0021			SL0P 7246	
ISN 00	0022		DZDX1 = DFUBB(Z(1),Z(2),Z(3),DX1,U1)	SL0P v247	
	123		THI = ATAN(DZDX1)	SL0P 7248	
	124		DXDS1 = -COS(TH1)	SL0P 7249	
	0025		DZDS1 = -SIN(TH1)	SLOP V250	
	126		DX3=X(N-1)-X(N)	SLOP V251	
	127		DX4=X(N-2)-X(N-1)	SLOP Y252	
	128		U2=1.0+DX4/DX3	SL0P 7253	
ISN 00	00 29		DZDX2=DFUBB (Z(N),Z(N-1),Z(N-2),DX3,U2)	SLOP 7254	
ISN 00	130		TH2=ATAN(DZDX2)	SL0P 7255	
	0031		DXD S2=CDS (TH2)	SLOP Y256	
ISN 00	0032		DZDS2=SIN(TH2)	SL0P 7257	
ISN 00	0033		CALL SPLIFM (L.N.SA.X.DUM.1.DUM.2.DUM.3.ND.51.XD.DSDX.1.DXDS1.1.DXDS2)SLDP 7258	DXDS215L0P V258	
		v		SL0P 7259	
		v	FIT Z(SA). FIND ZD(SI). FIND DZDS.		
ISN 0034	38		CALL SPLIF(N.SA.Z.DUMI.DUMZ.DUM3.NOT.SI.ZO.DZDS.1.DZDS.1.DZDS.1.DZDS.)	052) SLOP 7261	

ADPITONS IN EFFECT NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

RETURN

15N 0037

194

15N 0035 15N 0036

SLOP 7263 SLOP 7264 SLOP 7765

CALCULATE DZO=DZDS4DSDX DQ 2 1=1.NOT DZG(1)=DZDS(1)+DSDX(1)

UU

SLOP Y262

SLOP Y264 SLOP Y267 SLOP Y268 MOPTIONS IN EFFECT+SOURCE EBEDIC NOLIST NOBECK OBJECT NOMAP NOFORMAT GOSTMI NOXREF ALC NOANSF TERM FLAG(1) DUMP

37. PROGRAM SIZE =

1224, SURPROGRAM NAME = SLOP YZ

\*STATISTICS\* SOURCE STATEMENTS =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*

156K BYTES OF CORE NOT USED

## RECALESTED OPTIONS OPT(2), NOMAP

00110	ZI SY	OPTIONS IN EFFECT	SOR	NAME(MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE(MAX) AUTODBL(NONE) SOUNCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1)	NOANSF TERM FLAG(1) (
ISN	N 0002				SPLIFH 2
		0		SPLINE FIT - SURROUTINE CONTRIBUTED BY ANTHONY JAMESON	SPLIM 3
				GIVEN S AND F AT N CURRESPUNDING PUBLISHED A COSIC SPLINE	SPLIFM 4
				INFORMATION IN THE SET OF THE PROPERTY OF THE	SPLIFE
				COLUMN THE PROPERTY WILL BE INC. THE TING THIS OF THE PROPERTY	C #1740
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		, ,			Spr 194
				KN IS THE ORDER OF THE DERIVATIVE IMPOSED AT END OF SPLINE	SPLIFMIO
		v		W WILL BE THE VALUE OF THE DERIVATIVE THERE	SPLIFMII
		v		KM.KN CAN TAKE VALUES 1.2. OR 3	SPLIFMIZ
		v		S MUST BE MONOTONIC	SPL1FM13
		v			SPLIFMIA
		0		FIND SI(FI) AND DSI/DFI AT THE NX VALUES OF FI USING NEWTONS	SPLIFMIS
		0		METHOD AND TAYLOR SEPIES GENERATED IN SPLINE FIT	SPLIFMIG
		0		The state of the s	SPLIFMIT
ISN	2000			DATA DT/. 141341414141	SDI LENIO
					SPI FFW20
				SPLINE FIT N VALUES OF F AS A FUNCTION OF S	SPLIFM21
		U			SPL I FM22
ISN	8000 N			7 P T	SPL1 FM23
ISN					SPL J FM24
ISN				Y II	SPLIFM25
ISN					SPL) FW26
ISN		V		DS = S(J)-S(T)	SPLIFM27
ISN					SPLVFM28
				IF (DS.Eq.0.) GO TO 150	SPLIFM29
NSI 95				OF = (F(J)-F(1)) TOS	SPLIFM30
				JF (KM-2) 10,20,30	SPLIFM31
ISN			10		SPL I FM32
ISN				V = 3.*(DF-VM)/DS	SPL I FM33
ISN				60 10 50	SPL I FM34
ISI			20		SPLIFM35
ISI	00 00 N				SPL I FM36
NO.			90		200 1000
ISN			3	WA*64 # 4	Spi TEM 70
ISN				S = 5	SPLIFM40
ISN			04	7    -	SPLIFMAI
ISN	N 0025			J = J+K	SPL I FM42
ISN	N 0026			DS = S(J)-\$(1)	SPLIFMA3
1SN					SPL I FM44
ISN				DF = (F(J)-F(I))AS	SPL 1 FM45
ISN					SPL I FM&6
ISN				SQ#H = D	SPL 1 FM&7
ISN	N 0032		-	V = (3*(6.*0F-V)	SPL I FM&B
ISN			06		SPL I FM49

/15.37.27 PAGE	3	•	0		-		•	•		~	n	4	·c.	•	1	•	•	•		~		•	·c	•	_		•	•	
DATE 77.295/15.37.27	SPL 1 F103	SPL 1F104	SPLIFIOS	SPLIFION	SPLIFIOT	SPLIFIOR	SPLIFI09	SPL 1F110	SPLIFIFI	SPLIFII2	SPLIFIE	SPLIFIIA	SPLIFIIS	SPLIFII6	SPLIFIIT	SPLIFIIA	SPLIFIIO	SPLIF120	SPLIFIZE	SPLIFIZZ	SPLIFIES	SPLIFI24	SPLIFIZS	SPLIFI26	SPLIFIET	SPLIFIZE	SPL 1F129	SPLIFI30	SPLIFISI
FORTPAN H EXTENDED							*PT*FPPP(JP)))																	NX=1/)					
08/360 F			6T-1000 GO TO 175			FFF).LE.1.E-5) GO TO 4	WAL = SS*(FP(J)+.5*SS*(FPP(J)+SS*PT*FPPP(JP))	VALP = SS*(FPP(J)+.5*SS*FPPP(JP))		VALP			(M)											OUTINE SPLIFM			14HLOOP IN SPLIFM)		IFM IS STUCK)
SPL IFM	L = 0	5 LL = LL+1	1F (LL.GT.100)	FFF = FF/FIP(M)	\$\$=\$\$-FFF	IF (ABS(FFF) .LE.	WAL = SS*(FP(J)	WALP = SS*(FPP(	FF=F JF I+VAL	FIP(W) = FP(J)+VALP	GO TO 5	SI(M) = S(J)+55	FIP(M) = 1./FIP(M)	CONTINUE	1 = 1	31 = IN.	J2 = INT	M1 = 1	MO = NX	CONTINUE	RETURN	STOP	WRITE(6,170)	FORMATI / 2845UBROUTINE SPLIFM	STOP	. WRITE(6,180)	FORMATI	STOP	FURMAT(/16H SPLIFM IS STUCK)
(SEPT 76)		60										•		-						79		150	160	170		175	180		190
LEVEL 2.2 (	6800	0600	1600	. 2600	-		2600		6600			0102		0104	0105	0106		9010		0110	11116	0112	0113	0114	0115	9110	0117	0118	0119
	S	ISN			ISN	ISN	ISN	7	ISN	ISN	Z	ISN	Z	Z	ISN	ISN	ISN	ISN	ISN	ISN	SN								

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOPBL(NONE)

MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 2280. SURPROGRAM NAME = SPLIFM

119. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

144K BYTES OF COPE NOT USED

# REGLESTED OPTIONS OPTERS . NOMAP

LEVEL 2.2 (SFPT 76)

FORMATI /2745UBROUTINE SPLIF - - - NX=1/) WRITE(6.170) STOP 170 82.00 

HOPTIONS IN EFFECTIONAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

80. PROGRAM SIZE =

1736. SUBPROGRAM NAME = SPL IF

DIAGNOSTICS GENERATED 9 \*STATISTICS\*

SOURCE STATEMENTS =

\*STATISTICS\*

1400 2400

WAL = SS\*(FP(J)+.5\*SS\*(FPP(J)+SS\*PT\*FPPP(J)))

SS = SS-5(3)

WALP=SSe(FPP(J)+.5eSSeFPPP(J))

140 FIP(1)=FP(J)+VALP

PETUR

150

400

F1(1)=(3)+VAL

130

8073 0074 82.28 9200

SPLIF 85 SPLIF 86 SPLIF 87 SPLIF 88 SPLIF 89 SPLIF 90 SPLIF 91

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

LEVEL 2.2 (SEPT 76)

200

26
(SEPT
2.2
LEVEL

PT(2).NOMAP	
OPT(2)	
OPTIONS	
HE OVE STED	

THIS SUBROUTINE COMPRIBITION TALCALATION 448 NEESS  *** X-DIRECTION GRID DISTRIBUTION CALCULATION 448 NEESS  *** THIS SUBROUTINE COMPUTES THE X-DIRECTION GRID NEESS  *** THIS SUBROUTINE COMPUTES THE X-DIRECTION GRID NEESS  *** THE SUBROUTINE COMPUTES THE X-DIRECTION GRID NEESS  *** FRETCHING FUNCTION*, THE ARGUMENT LIST PARAMETERS NEESS  *** FRETCHING FUNCTION*, THE ARGUMENT LIST PARAMETERS NEESS  *** FRETCHING FUNCTION*, THE ARGUMENT LIST PARAMETERS NEESS  *** CONTEX	ISN 0002	SUBROUTINE XMESH(X.DXLE.DXTE.DXMAX.NI.NF.NB.XDIST.XLE.TOUTI.IOUT2) INPTX363	JT2) INPTX363 INPTX364
*** X-DIRECTION GRID DISTRIBUTION CALCULATION ***  *** THIS SURROUTINE COMPUTES THE X-DIRECTION GRID  *** THIS SURROUTINE COMPUTES THE X-DIRECTION GRID  *** THIS SURROUTINE COMPUTES THE X-DIRECTION GRID  *** TINPUT ***  *** TINPUT ***  *** TINPUT ***  *** GRID SPACING AT LE (CHORDS)  *** TINPUT ***  *** GRID SPACING AT LE (CHORDS)  *** TINPUT ***  *** GRID SPACING AT LE (CHORDS)  *** COMPUTES THE COMPUTED THE CHORDS)  *** COMPUTES THE CHORDS THE C			INPT X365
C STREETING GRID DISTRIBUTION CALCULATION 448		Company of the compan	1NPT X366
*** X-DIRECTION GRID DISTRIBUTION CALCULATION ***  *** THIS SURROUTINE COMPUTES THE X-DIRECTION GRID  *** THIS SURROUTINE COMPUTES THE X-DIRECTION GRID  *** STATECHING AT LE (CHORDS)  *** INPUT ***  *** INPUT ****  *** OVITION ***  *** OUTPUT ***  *** OU		U	XMESH 3
THE SURROUTING COMPUTES THE X-DIRECTION GRID  STRETCHING ENCTION. THE ARGUMENT LIST PARAMETERS XMESH  STRETCHING ENCTION. THE ARGUMENT LIST PARAMETERS XMESH  ARE DEFINED AS FOLLOWS  C DXLEGPID SPACING AT LE (CHORDS)  C DXMEXAMMERR OF GAID POINTS DUSTREAM OF AIRFOIL LE  NEMUMBER OF GAID POINTS DUSTREAM OF AIRFOIL TE  XMESH  C XOTSAMMERR OF GAID POINTS DUSTREAM OF AIRFOIL TE  XMESH  C XOTSAMMERR OF GAID POINTS DUSTREAM OF AIRFOIL TE  XMESH  C XOTSAMMERR OF GAID POINTS DUSTREAM OF AIRFOIL TE  XMESH  C XOTSAMMERR OF GAID POINTS DUSTREAM OF AIRFOIL TE  XMESH  C XOTSAMMERR OF GAID POINTS TO X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C XOTSAMMERR OF GAID POINTS IN X-DIRECTION GAID  XMESH  C X X X X X X X X X X X X X X X X X X		C *** X-DIRECTION GRID DISTRIBUTION CALCULATION ***	XMESH 4
### THIS SUBROUTINE COMPUTES THE X-DIRECTION GRID  DISTRIBUTIONS THE ARGUMENT LIST PARAMETERS XMESH  ### INPUT ###  DEFINED AS FOLLOWS  ### INPUT ###  DEFINED AS FOLLOWS  NEESH  CONTRACT X-DISTANCE GRID POINTS DOWNSTREAM OF AIR-OIL LE  NOTION X-MARKER OF GRID POINTS DOWNSTREAM OF AIR-OIL LE  NOTION X-MARKER OF GRID POINTS DOWNSTREAM OF AIR-OIL LE  NOTION X-MARKER OF GRID POINTS DOWNSTREAM OF AIR-OIL LE  NOTION X-MARKER OF GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-DIRECTION GRID DISTRIBUTION  NOTION X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-MESH  CONTROL X-MESH  CONTROL X-DISTANCE GRID POINTS IN X-MESH  CONTROL X-MESH			
### THIS SURROUTINE COMPUTES THE X-DIRECTION GRID  DISTRIBUTION FOR AN AIRCOIL FROM AN ANALYTICAL  STRETCHING SHOWTION, THE ARGUMENT LIST PARAMETERS  ARE DEFINED AS FOLLOWS  WEST AND SPACING AT LE (CHORDS)  DXMAXMAX GRID SPACING AT LE (CHORDS)  DXMAXMAX GRID SPACING AT LE (CHORDS)  DXMAXMAX GRID SPACING AT LE (CHORDS)  C DXTEADBACK GRID POINTS OWNERTRAN OF AIRCOIL TE  NOSADBACK GRID POINTS OWNERTRAN OF AIRCOIL TE  XOISTTOTAL X-OISTANCE OF COMPUTATIONAL OPASIN (CHORDS)  XLEADBACK CONTAINING X-OIRECTION GRID DISTRIBUTION  NIADBACK CONTAINING X-OIRECTION GRID DISTRIBUTION  XHESH  C X(1)ADBACK CONTAINING X-OIRECTION GRID DISTRIBUTION  NIADBACK CONTAINING X-OIRECTION GRID DISTRIBUTION  XHESH  C X(1)ADBACK CONTAINING X-OIRECTION GRID X-WESH  C X(1)ADBACK CONTAINING CONTAINING CONTAINI			
DXHAXAPACTION. THE OLD ON THE			
STRETCHING FUNCTION. THE ARGUMENT LIST PARAFTERS XWESH  THE INPUT ***  THE OFFINED AS FOLLOWS  C DXLEGDID SPACING AT LE (CHORDS)  C DXTEGATO SPACING AT TE (CHORDS)  C DXTEADD SPACING AT TE (CHORDS)  C NOTEADD SPACING AT TE (CHORDS)  C X(1)ADD SPACING AT TE CHORDS)  C X(1)ADD SPACING AT TE CHORDS  C X(1)ADD SPACING AT THE CHORDS  C X(1)ADD SPACING			
### INDUT ###  ### CHORDS)  ### CHORDS  ##		C STRETCHING FUNCTION. THE ARGUMENT LIST PARAMETERS	
DXTEGRID SPACING AT TE (CHORDS)  DXTEGRID SPACING AT TE (CHORDS)  DXTEGRID SPACING ON A IRFOIL (CHORDS)  C NECMAX GRID SPACING ON A IRFOIL (CHORDS)  NECMAMER OF GRID POINTS OWNSTREAM OF A IRFOIL TE  XDISTTOTAL X-DISTANCE OF COMPUTATIONAL DOWAIN (CHORDS)  XLEAPRAY CONTAINING X-DIRECTION GRID DISTRIBUTION  XMESH  C X(1)APRAY CONTAINING X-DIRECTION GRID DISTRIBUTION  XMESH  C XIIAPRAY CONTAINING X-DIRECTION GRID XMESH  C XMESH  C XII		C ARE DEFINED AS FOLLOWS	
C DXLEGPID SPACING AT LE (CHORDS) C DXMXXMAX GRID SPACING AT TE (CHORDS) C NOTICEMAX GRID SPACING ON A IRPOIL LE C NOTICEADISTANCE GRID POINTS DOWNSTREAM OF A IRPOIL TE C X(1)ADRAY CONTAINING X-DIRECTION GRID DISTRIBUTION C X(1)ADIMER OF GRID POINTS IN X-DIRECTION GRID C X(1)ADIMER OF DISTRIBUTION *** C **** FAUN IS DERIVATIVE OF GRID DISTRIBUTION *** C **** FAUN IS DERIVATIVE OF GRID DISTRIBUTION *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C **** FAUN IS DERIVATION OF DESIRED HIGH GRADIENT *** C ***** FAUN IS DESIRED HIGH GRADIENT *** C ***** FAUN IS DERIVATION OF		•	
DXTEGPID SPACING AT TE (CHOPDS)  C DXTEGPID SPACING AT TE (CHOPDS)  C DXMESSH  C DXMESAGPID SPACING AT TE (CHOPDS)  C NOAUMRER OF GRID POINTS UPSTREAM OF AIRFOIL TE  XDISTADAIR C GRID POINTS UPSTREAM OF AIRFOIL TE  XDISTADAIR C GRID POINTS UPSTREAM OF AIRFOIL TE  XDISTADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  XDISTADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL TE  C X(I)ADAIR C GRID POINTS OWNSTREAM OF AIRFOIL THE AIRFOIL TE  C X(I)		C *** INPUT ***	
C DXHESGRID SPACING AT LE (CHORDS)  C DXHAXMAX GRID SPACING AT LE (CHORDS)  C NFNUMBER OF GRID POINTS OPSTREAM OF AIRFOIL TE  XDISTNUMBER OF GRID POINTS OPSTREAM OF AIRFOIL TE  XDISTNUMBER OF GRID POINTS OPSTREAM OF AIRFOIL TE  XDISTNUMBER OF GRID POINTS OPSTREAM OF AIRFOIL TE  XLEAPAC CONTAINING X-DIRECTION GRID DISTRIBUTION  XMESH  C X(1)APAC CONTAINING X-DIRECTION GRID DISTRIBUTION  XMESH  C X(1)APAC CONTAINING X-DIRECTION GRID NISTRIBUTION  XMESH  C X(1)APAC CONTAINING X-DIRECTION GRID  XMESH  C X(1)APAC CONTAINING X-DIRECTION GRID  C X(1)APAC CONTA			
C DYMAKAMAX (REID SALING ON A IRFOLD.)  C DYMAKAMAX (REID SALING ON A IRFOLD.)  C NGNUMBER OF GRID POINTS UDSTREAM OF AIRFOLL LE  XDFSTOTAL X-DISTANCE GETWEEN INFLOW AND AIRFOLL LE (CHORDS)  XMESH  C XLAPRAY CONTAINING X-DIRECTION GRID DISTRIBUTION  XMESH  C XLAPRAY CONTAINING X-DIRECTION GRID  C XMESH		C DALEGP ID SPACING AT LE (CHORDS)	
THE STATE OF THE S		C DATE	
C XDISTTOTAL X-DISTANCE OF COMPUTATIONAL DOWAIN (CHORDS) XMESH  C XDISTTOTAL X-DISTANCE OF COMPUTATIONAL DOWAIN (CHORDS) XMESH  C XLAPRAV CONTAINING X-DIRECTION GRID DISTRIBUTION XMESH  C XIAPRAV CONTAINING X-DIRECTION GRID DISTRIBUTION XMESH  C XIAPRAV CONTAINING X-DIRECTION GRID STRIBUTION XMESH  C MIAPRAV CONTAINING X-DIRECTION GRID XMESH  C MILL X IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C MARCH  C MARC		C COURT COURT OF THE COURT OF T	XMESH 17
C XOISTTOTAL X-DISTANCE GF COMBUTATIONAL DOMAIN (CHORDS) XMESH  C XLEA-DISTANCE GF WEEN INFLOW AND AIRFOIL LE (CHORDS) XMESH  C X()ADMRER OF GRID POINTS IN X-DIRECTION GRID NISTRIBUTION XMESH  C NIAUMMER OF GRID POINTS IN X-DIRECTION GRID XMESH  C NIAUMMER OF GRID POINTS IN X-DIRECTION GRID XMESH  C NIMENSION X(1)  C *** FUN IS DERIVATIVE OF GRID DISTRIBUTION ***  FUN(X)=D**(X**4-ZZ*X**2*C*X**8)/(A*(ABS(X))**3*1.)  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION O))*(40.0*X)***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT TERRATION PARAMETERS ***  C *** SET INUTI=1 TO PRINT GUT GRID DISTRIBUTION ***  C *** SET INUTI=1 TO PRINT GUT TERRATION PARAMETERS ***  C *** SET INUTI=1 TO PRINT GUT TERRATION PARAMETERS ***  C *** SET INUTI=1 TO PRINT GUT TERRATION PARAMETERS ***  C *** SET INUTI=1 TO PRINT GUT TERRATION PARAMETERS ***  C *** SET INUTIES TO PRINT GUT TERRATION PARAMETERS ***  C *** SET INUTIES TO PRINT GUT TERRATION PARAMETERS ***  C *** SET TO PRINT GUT TERRATION PARAMETERS ***  C *** SET TO PRINT GUT TERRATION PARAMETERS ***  C *** SET TO PRINT GUT TERRATION PARAMETERS ***  C *** SET TO PRINT GUT TERRATION PARAMETERS ***  C *** SET TO PRINT GUT TERRATION PARAMETERS ***  C *** SET TO PRINT GUT TERRAT			AMESH 18
*** CUTPUT ***  C X()************************************		CONTINUE AND ISTANCE OF COMPLETIONAL CONDOC	ST HERMA
C		C XLE X-DISTANCE RETWEEN INFLOW AND AIRFOIL LE (CHOROS)	XMESH 21
C X(1)APRAY CONTAINING X-DIRECTION GRID DISTRIBUTION XMESH C NIAPRAY CONTAINING X-DIRECTION GRID XMESH C NIMENSION X(1) C HEAT FUN IS DERIVATIVE OF GRID DISTRIBUTION *** C HEAT FUN IS DERIVATIVE OF GRID DISTRIBUTION *** C FUN(X)=D*(X**4-Z2*X**2+C*X+B)/(A*(ABS(X))**3+1.*) C HON(X)=D*(X**4-Z2*X**2+C*X+B)/(A*(ABS(X))**3+1.*) C HON(X)=C** C HEAT IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*(40.0*X)*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*(40.0*X)**** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*(40.0*X)***** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*(40.0*X)**** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*(40.0*X*100.0)*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*(40.0*X*100.0)*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*(40.0*X*100.0)*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*** C HAUX(X)=EXP(-AMINI(20.0*X*100.0))*** C HAUX(X)=EXP(-AMINI(20.			
C		C *** CUTPUT ***	
C X()APRAY CONTAINING X-DIRECTION GRID DISTRIBUTION XMESH C NINUMHER OF GRID POINTS IN X-DIRECTION GRID XMESH C THE FUN IS DERIVATIVE OF GRID DISTRIBUTION ****  C *** FUN (X)=D**(X**4-Z2*X**2+C*X+B)/(A*(ABS(X))**3+1.*)  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX		U	
C. C		C X()APRAY CONTAINING X-DIRECTION GRID DISTRIBUTION	
C *** FUN (X) = D** (X**4 - Z2*X**2*C*X**B) / (A*(ABS(X))**3*1.*)  C *** FUN (X) = D** (X**4 - Z2*X**2*C*X*B) / (A*(ABS(X))**3*1.*)  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX (X) = EXP(-AMINI(20.0*X,100.0))*(40.0*X)****  C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH  C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH  C **** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH  C **** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH  C ***** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH  C ****** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH  C ******* SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH  C ***********************************		NINOWDER OF SPILE POINTS IN A-DIRECTION GRID	XME 3H CO
C FUN(X)=D*(X**4-Z2*X**2*C*X+B)/(A*(ABS(X))**3*1*)  C *** FUN IS DERIVATIVE OF GRID DISTRIBUTION *** XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION OF DISTRIBUTION *** XMESH  C *** SET IOUTI=1 TO PRINT OUT ITEPATION PARAMETERS *** XMESH  C *** SET IOUTI=1 TO PRINT OUT ITEPATION PARAMETERS *** XMESH  C *** SET IOUTI=1 TO PRINT OUT ITEPATION PARAMETERS *** XMESH  C *** SET IOUTI=1 TO PRINT OUT ITEPATION PARAMETERS *** XMESH			
DIMENSION X(1)  C *** FUN IS DERIVATIVE OF GRID DISTRIBUTION ***  C FUN(X)=D*(X**4-Z2*X**2+C*X+B)/(A*(ABS(X))**3+1*)  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION OF DESIRED HIGH GRADIENT ***  C *** FAUX IS AUXILLARY FUNCTION OF DESIRED HIGH GRADIENT ***  C *** FAUX IS AUXILLARY FUNCTION OF DISTRIBUTION ***  C *** SET INUTIAL TO PRINT OUT ITERATION PARAMETERS ***  C *** SET INUTIAL TO PRINT O			
C *** FUN IS DERIVATIVE OF GRID DISTRIBUTION ***  C *** FUN (X)=D*(X**4-Z2*X**2+C*X+B)/(A*(ABS(X))**3+1*)  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C *** FAUX (X)=EXP(-AMINI(20.0*X,100.0))*(40.0*X)***  C *** SET IOUT2=1 TO PRINT OUT ITERATION ***  C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS ***  XMESH  C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS ***  XMESH  XMESH  XMESH  XMESH  XMESH	6000	DIMENSION X (1)	
C *** FUN IS DERIVATIVE OF GRID DISTRIBUTION *** XMESH XMESH C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH C *** FAUX IS AUXILLARY FUNCTION OF DISTRIBUTION ***  C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH			
C FUN(X)=D*(X**4-Z2*X**2*C*X*8)/(A*(ABS(X))**3*1.*)  C **** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C IN REGIONS OF DESIPED HIGH GRADIENT ***  C FAUX(X)=EXP(-AMIN1(20.0**100.0))*(40.0*X)***  C **** SET IOUT1=1 TO PRINT GUT ITERATION ***  C **** SET IOUT2=1 TO PRINT GUT ITERATION PARAMETERS ***  XMESH  C ***********************************		C *** FUN IS DERIVATIVE OF GRID DISTRIBUTION ***	
FUNIX)=D*(X**4-ZZ*X**2*C*X*+B)/(A*(ABS(X))**3*1.*)  XMESH  C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  C FAUX(X)=EXP(-AMIN1(20.0*0*X,100.0))*(40.0*X)***  C ********************************		U	
C *** FAUX IS AUXILLARY FUNCTION USED TO MODIFY FUN XMESH  IN REGIONS OF DESIPED HIGH GRADIENT ***  C FAUX(X)=EXP(-AMINI(20.0***,100.0))*(40.0*X)***  C FAUX(X)=EXP(-AMINI(20.0***,100.0))*(40.0*X)***  C FAUX(X)=EXP(-AMINI(20.0***,100.0))*(40.0*X)****  C FAUX(X)=EXP(-AMINI(20.0***,100.0))*(40.0*X)****  C FAUX(X)=EXP(-AMINI(20.0***,100.0))*(40.0*X)****  C FAUX(X)=EXP(-AMINI(20.0***,100.0*X)****  C FAUX(X)=EXP(-AMINI(20.0***,100.0*X)***  C FAUX(X)=EXP(-AMINI(20.0***,100.0*X)***  C FAUX(X)=EXP(-AMINI(20.0***,100.0*X)**	*000	FUN(X)=D+(X++4-Z2+X++2+C+X+H)/(A+(AHS(X))++3+1)	
FAUX(X)=EXP(-AMINI(20.0*X,100.0))*(40.0*X)***  FAUX(X)=EXP(-AMINI(20.0*X,100.0))*(40.0*X)***  C		C *** FAILY TS ALIXTI ADV FINCTION INSENT TO WORLEY FIRM	
C   FAUX(X)=EXP(-AMINI(20.0*X,100.0))*(40.0*X)****   FIXCYI   FI		C IN REGIONS OF DESIRED HIGH GRADIENT ***	
FIXCY:  CASTACTOS (A)		The state of the s	XMESH 38
C *** SET IOUTI=1 TO PRINT OUT ITERATION PARKETERS *** XMESH 43  C *** SET IOUTI=1 TO PRINT OUT ITERATION PARKETERS *** XMESH 43  C *** SET IOUTI=1 TO PRINT OUT ITERATION PARKETERS *** XMESH 43  C *** SET IOUTE=1 TO PRINT OUT ITERATION PARKETERS *** XMESH 45	1SN 0005		FIXCV122
C *** SET IOUTI=1 TO PRINT OUT ITERATION PARKETERS *** XMESH &S  C *** SET IOUT2=1 TO PRINT OUT ITERATION PARMETERS *** XMESH &S  C *** SET IOUT2=1 TO PRINT OUT ITERATION PARAMETERS *** XMESH &S			XMESH 40
SET IOUTI=1 TO PRINT OUT TERATION PARAMETERS *** XMESH XMESH			THE THE STATE OF T
SET IOUTE=1 TO PRINT OUT ITERATION DARAMETERS *** XMESH XMESH			XMESH 43
XMESH &S		C *## SET INUTE-1 TO PRINT OUT ITERATION PARAMETERS ***	XMESH &&
			XMESH 45

SN 0006   NI = 300   NI = 300   SN 11 = 30	7 TENET 7.5	1961 1961		DAIL TIESTINGSON
0009 0007 000 191-111 0009 0009 0001 0009 0009 0009 0009 0		94	06=IN	FIXCY&33
0008 300 X(11)=0.0  MACACHO-3  O010 ARAZON  O011 ARAZON  O012 C. *** ESTABLISH STRETCHING FUNCTION COFFICIPNTS ****  C. *** ESTABLISH STRETCHING FUNCTION COFFICIPNTS ****  C. *** OUTS TERATION COMPUTES XI ****  O013 ZED-45  O014 F. (100772-EO-1) WRITE (6.201)  O015 F. (100772-EO-1) WRITE (6.201)  O016 F. (100772-EO-1) WRITE (6.202)  F. (10072-EO-1) WRITE (6.202)  O017 F. (100772-EO-1) WRITE (6.202)  O018 F. (100772-EO-1) WRITE (6.202)  O019 F. (100772-EO-1) WRITE (6.202)  O010 F. (100772-EO-1) WRITE (6.203)  O010 F. (100772-EO-1) WRITE (6.203)  O010 F. (100772-EO-1) WRITE (6.204) JAA-B.C.O.22  O010 F. (100772-EO-1) WRITE				FIXCABA
DOUGH   DOUG				FIXCY435
0010 APRZ-0  C. STREEN STREETCHING FUNCTION COFFICIENTS SSS NEESN  C. STREET SSS NEESN  C. STREE		2	PFAC=0.3	XMESH 50
Commence		10	A=2.0	
Comparison   Com			DXMAX=DXMAX/1.1	
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC				
C			*******************	**XMESH
C		J		
C		v	*** ESTABLISH STRETCHING FUNCTION COEFFICIENTS ***	
Main		U		
			0.0=XX	
		13	72=0-45	
C   *********************************		•	IF ( IGATI - EO - 1) WRITE (6-214) DXLE - DXMAX - MF - NB - XDIST - XLE	
C ### OUTER ITERATION COMPUTES X1 ### X X X X X X X X X X X X X X X X				
F (100TP-E0.1) WRITE (6.201)   WHEN E (1.201)   WHESH		v	*** OUTER ITERATION COMPUTES X1 ***	
IF (IDUT2-EG-11) WRITE (6.2021)   WHEN IF (6.2021		J		
1		91	(10UTP-E0-1) WRITE	
1		18	(10UT2.EQ.1) WPITE	
DO 101  =1,10   DO 102  =1,20   DO 102  =1,20		50	(10LT2.EQ.1) WRITE	
C ### INNER ITERATION COMPUTES R.C.D. AND Z2 ### XWESH  C DO 102 J=120  MO22		22		
C ### INNER ITERATION COMPUTES B.C.D. AND Z2 ### XMESH  0023		·		
C DO 102 J=1.20  0024 A3=0.0025-0.2542  A3=0.0025-0.2540  A3=0.0025-0.2540  A3=0.0025-0.2540  A4=0.0025-0.2540  A4=0.0025-0.2540  A4=0.0025-0.2540  A4=0.0025-0.2540  A4=0.0025-0.2540  A4=0.0025-0.2540  A4=0.0025-0.2540  A4=0.0026-0.5540  A4=0.0026-0.5540  A4=0.0026-0.540  A4=0.00000000000000000000000000000000000		J	*** INNER ITERATION COMPUTES B.C.D. AND Z2 ***	
0023		J		
A=0.0625-0.25422		23		
0025         A2=0.125*A+1.         XMESH		24	A1=0 -0625-0 -25#22	
0026         A3=XN##4-Z2#XN##2         XMESH		35	A2=0-125+A+1.	
AGE ANNWESTS 1.         AGE ANN ESTS 1.         AGE ANN ES			ハー・マー・マー・マー・マー・マー・マー・マー・マー・マー・マー・マー・マー・マー	
AS=A4/A2         AS=A4/A2         XMESH           0029         D1=DXEC/DXMAX*A5)         XMESH           0030         D2=DXEC/IDXMAX*A5)         XMESH           0031         A6=XM*D1+0.5         XMESH           0032         A7=D1-1.         XMESH           0033         A9=XM*D2-0.5         XMESH           0034         A9=XM*D2-0.5         XMESH           0035         A11=A1-A3*D1         XMESH           0034         A9=XM*D2-0.5         XMESH           0035         A11=A1-A3*D2         XMESH           0036         A11=A1-A3*D2         XMESH           0037         DENDM=1./(A10*A6-A7*A9)         XMESH           0037         DENDM=1./(A10*A6-A7*A9)         XMESH           0039         C=(A10*A8-A7*A11)*DENOM         XMESH           0040         D=A2*DALE/(A1-0.5*C+B)         XMESH           0040         D=A2*DALE/(A1-0.5*C+B)         XMESH           0040         TF (10XT2.6.0.1)*WRITE (6.204)         J.A.B.C.D.Z         XMESH           C         AND DXTE TO LIE APPROXIMATELY AT X=0.5 *****         XMESH           C         A**** INNEP ITERATION IS UNDER RELAXED ****         XMESH           C         ***** INNEP ITERATION IS UNDER RELAXED ****		1.1	A4= A #XN*# 3+ [ -	
December			**************************************	
Accordance   Acc		9 9	DI-COLD FOR BACKER	
A==XN*PD1+0.5  A7=D1-1.  A10=x2-1.  A10=x2-1.  A10=x2-1.  A10=x2-1.  B=(A5x411-A8+A91)************************************				
00.33				
### ### ### ### ### ### ### ### ### ##				
A9=XY4PD2-0.5  A10=D2-1.  0036  A11=A1-A34D2  0037  DENOM=1./(A104A6-A79A9)  B=(A6*A11-A84A9)*DENOM  0038  C=(A104A8-A74A11)*DENOM  D=A2*ADALE/(A1-0.5*C+B)  C=(A10*A8-A7*A11)*DENOM  D=A2*ADALE/(A1-0.5*C+B)  C=(A10*A8-A7*A11)*DENOM  D043  C=(A10*A8-A7*A11)*DENOM  D044  C=(A10*A8-A7*A11)*DENOM  D045  C=(A10*A8-A7*A11)*DENOM  D046  C=(A10*A8-A7*A11)*DENOM  D047  C=A2*ADALE/(A1-0.5*C+B)  XMESH  XMESH  C=A** INNEP ITERATION IS UNDER RELAXED ***  XMESH  CC ZZ=RFAC*ZN*(1AFAC)*Z2  XMESH  XMESH  CC ZZ=RFAC*ZN*(1AFAC)*Z2  XMESH  XMESH  XMESH  XMESH  XMESH  ZMESH		200	100100	
A10=PC-1.   A10=		2 :		
00350 A11=A1-A34D2 0036 A11=A1-A34D2 0037 DENOM=1-(*A10*A6-A7*A9) 0038 E=(A6*A11-A8*A9)*DENOM 0039 C=(A10*A8-A7*A11)*DENOM 0039 D=A2*DALE/(*A1-0.5*C**B) 0040 D=A2*DALE/(*A1-0.5*C**B) 0041 C ****** CONSTRAINT CON ON Z2 CAUSES DALE TO LIE AT X=-,5 XMESH AND DXTE TO LIE APPROXIMATELY AT X=0,5 ****  C AN=(A*(-1,-16.**C*+A8.**B)-32.**64.***()/(***A-64.)  C ***** INNER ITERATION IS UNDER RELAXED ****  C ***** INNER ITERATION IS UNDER RELAXED ****  C ***** INNER ITERATION IS UNDER RELAXED ****  C Z2=RFAC*ZN**(1,-RFAC)*Z2  C XMESH				
DESCRIPTION IS UNDER RELAXED STATES THE SHORT STATES THE SHORT STATES THE SHORT SHOR		2 2	ALCENTA	
DENOM=1./(A104A6-A7949)  0037  DENOM=1./(A104A6-A7949)  0038  C=(A104A8-A74A11)*DENOM  0040  C=(A104A8-A74A11)*DENOM  0041  TF (10JT2.E0.1) WRITE (6.204) J.A.B.C.D.Z2  XMESH  CC  ****** CONSTRAINT CON ON Z2 CAUSES DXLE TO LIE AT X=5  XMESH  CC  AND DXTE TO LIE APPROXIMATELY AT X=0.5 ****  XMESH  CC  AND DXTE TO LIE APPROXIMATELY AT X=0.5 ****  XMESH  CC  AND DXTE TO LIE APPROXIMATELY AT X=0.5 ****  XMESH  CC  ***** INNER ITERATION IS UNDER RELAXED ****  CC  ZZ=RFAC*ZN**(1RFAC)*Z2  CC  ZZ=RFAC*ZN**(1RFAC)*Z2  XMESH  XMESH  CC  ZZ=RFAC*ZN**(1RFAC)*Z2  XMESH		9	NORTH	
0039 B=(A6*A11-A8*A9)*DENOM 0039 C=(A10*A8-A7*A11)*DENOM 0039 C=(A10*A8-A7*A11)*DENOM 0040 P=A2*BDALE/(A1-0.5*C+B) 0041 IF (ICATZ.*EQ.1) WRITE (6.204) J.A.B.C.D.Z2  C *** CONSTRAINT EON ON Z2 CAUSES DXLE TO LIE AT X=5 XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C AND DXTE TO LIE APPROXIMATELY		37	DENOM=1./(A10+A6-A7+A9)	
C=(A104AB-A74A11)*DENDM 0040 D=A2*DVLE/(A1-0.5*C+B) 0041 C **** CONSTRAINT EON ON Z2 CAUSES DXLE TO LIE AT X=5 XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 ***  C AND DXTE TO LIE APPROXIMATELY AT X=0.5 ***  C AND DXTE TO LIE APPROXIMATELY AT X=0.5 ***  C XMESH C XMESH C XMESH C XMESH C C XMESH XMESH C C XMESH XME		38	B=(A6*AII-A8*A9)*DENOM	
0040 D=A2*BDXL=/(A1-0.5*C+B) 0041		39	C=(A10*A8-A7*A11)*DENOM	
0041 IF (IQUT2.EQ.1) WRITE (6.204) J.A.B.C.D.22  XMESH  C		00	D=A2*DALE/(A1-0.5*C+B)	
C *** CONSTRAINT EON ON Z2 CAUSES DXLE TO LIE AT X=5 XMESH  C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH  C ZN=(A*(-1,-16,*C+48,*B)-32,+64,*C)/(4,*A-64,)  C ZN=(R*(-1,-16,*C+48,*B)-32,+64,*C)/(4,*A-64,)  C X=R* INNER ITERATION IS UNDER RELAXED *** XMESH  C Z2=RFAC*ZN+(1,-RFAC)*Z2  C Z2=RFAC*ZN+(1,-RFAC)*Z2  NMESH  C Z2=RFAC*ZN+(1,-RFAC)*Z2  NMESH  XMESH  XMESH  XMESH  XMESH  XMESH  XMESH				
C *** CONSTRAINT EON ON Z2 CAUSES DXLE TO LIE AT X=5 XMESH C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C XMESH O043 C ZN=(A*(-116.*C+48.*E)-32.+64.*C)/(4.*A-64.) C XMESH C XMESH C X2=RFAC*ZN+(1RFATION IS UNDER RELAXED *** XMESH C Z2=RFAC*ZN+(1RFAC)*Z2 O044 Z2=RFAC*ZN+(1RFAC)*Z2 XMESH XMESH XMESH C X2=RFAC*ZN+(1RFAC)*Z2 XMESH XMESH XMESH XMESH XMESH XMESH XMESH XMESH		U		
C AND DXTE TO LIE APPROXIMATELY AT X=0.5 *** XMESH C ZN=(A*(-1,-16.*C+48.*E)-32.*64.*C)/(4.*A-64.) C XNESH C *** INNER ITERATION IS UNDER RELAXED *** XMESH C Z2=RFAC*ZN*(1RFAC)*Z2 C Z2=RFAC*ZN*(1RFAC)*Z2 XMESH		٥	CONSTRAINT CON ON 72 CAUSES DXLE TO LIE AT	
C ZN=(A*(-1,-16,*C+48,*E)-32,+64,*C)/(4,*A-64,) XMESH XMESH C *** INNEP ITERATION IS UNDER RELAXED *** XMESH C Z=RFAC*ZN*(1,-RFAC)*Z2 XMESH XMESH C Z=RFAC*ZN*(1,-RFAC)*Z2 XMESH XME		U	*** 5.0=X	
0043		U		
C *** INNER ITERATION IS UNDER RELAXED *** XHESH C Z2=RFAC*ZN+(1,-RFAC)*Z2 0044 Z2=RFAC*ZN+(1,-RFAC)*Z2 XMESH 0045 IF (ABS(72-ZN)*LT*0*000001) G0 T0 105	ISN 004	13	ZN=(A*(-1,-16,*C+48,*B1-32,+64,*C)/(4,*A-64,)	
C *** INNER ITERATION IS UNDER RELAXED *** XMESH C Z2=RFAC*ZN+(1,-RFAC)*Z2 0044 Z2=RFAC*ZN+(1,-RFAC)*Z2 XMESH 0045 IF (ABS(Z2-ZN)*LT*0*000001) G0 T0 105		U		
C Z2=RFAC*ZN+(1RFAC)*Z2 XMESH 0044 Z2=RFAC*ZN+(1RFAC)*Z2 XMESH 0045 FF (ABS(Z2-ZN)*LT.0.0000001) GD TD 105 XMESH XMESH		U	*** INNER ITERATION IS UNDER RELAXED ***	
0044 Z2=RFAC#ZN+(1-AFAC)#Z2 XMESH 0045 FF (ABS(72-ZN)-LT-0-00000001) GO TO 105 XMESH XMESH				
0045 JF (ABS(Z2-ZN)-LT-0-0000001) GO TO 105 XHESH		*	Z2=RFAC*ZN+(1RFAC)*Z2	
		50	F (ABS(72-ZN)-LT-0.0000001) GU TU 105	

LEVEL 2.2 (	(SEPT 7	192	XMESH OS/360 FORTRAN H EXTENDED	DATE 77-295/15-38-07
15N 0047		102	CONTINE	XMESHIOO
			CONTINE	XMESHIDI
			CA=Aexiv	XMESH102
			CB=XN##2	XMESH103
ISN 0051			C1=3.*CA*XN	XMESH104
			C2=CB*(CB-22)+C*XN+B	XMESH105
			C3=CA*CB+1.	XMESH106
			C4=(4.4CB-2.422)#XN+C	XMESH107
			CS=6.*CA	XMESHIOB
			C6=12. #CB-2. #22	XMESH109
		4 - 10	FUNX=-C1#C2+C3#C4	XMESHI FO
			FUNXX=-C5*C2+C3*C6	XMESH111
	v			XMESH112
	v		*** NEWTON ITERATION USED FOR OUTER LOOP ***	XMESHI13
	U			XMESH114
15N 0059		-	AND = AN-FUNK /FUNKK	XMESHI15
15N 0060			IF (101/12.EQ.1) WRITE (6.205) I,XN.XNP.FUNX,FUNXX	XMESH116
			IF (ABS(XN-XNP).LT.0.0000001) GD TD 103	XMESH117
1SN 0064		100	XX=XXP	XMESH118
		101	CONTINUE	XMESH119
15N 0066		103	CONTINKE	XMESH120
			X1=XN+0.5	XMESH121
	v			XMESH122
	**	****	**********************************	**************************************
	v			XMESH124
	v		*** COMPUTE GRID DISTRIBUTION ON AIRFOIL ***	XMESHIPS
	U			XMESH126
	U		*** BISECTION ITERATION USED ***	XMESH127
	v			XMESH128
15N 0068			JF (10UT2.E0.1) WRITE (6.206)	XMESH129
			(10072-EQ-1) WRITE	XMESHI30
				XMESHIRI
			K (NI + 1) = - K (NI)	XWF SHI 32
			MED-INE+2	XMES ME 33
			FTFH±0.0005	XMF SHI 34
		S. Called S.		
				CE INCOMY
				OCTHO SHA
				AMESHISI
			00 150 1157	XMESHI38
		10.00	ETE=0.5*(ETEM+ETEL.)	XMESH139
			ELE =0.5*(ELEM *ELEL)	XME SHI 40
			INIAX =0.0	XMESHIRI
		-	DO 104 1=NF2.NI	XMESH142
			INT. I. T. S.	XMESH143
		-	X(1)=X(1M)+FIN(X(1M)-0.5)	XMESHIBA
		-	XX=-X(1)+1.0	XMESH145
15N 0087		200	PELX#ELE*FAUX(X(I))+ETE*FAUX(XX)	XMESH146
			X(1)=X(1)+0ELX	XMESH147
		-	FF (DMAX.6T.(X(1)-X(PM))) GO TO 121	XMESHIAB
		_	DMAX=X(1)-X(1M)	XMESHIAO
			PMAX=1	XMESHISO
		121	CONT. THE	XMFSHISI
15N 0094			IF (X(1),GT.1.0) GO TO 110	YMES MISSO
				AME SHE SE

LEVEL	2.2	(SCPT	263	XMESH OS/360 FORTRAN H EXTENDED	DATE 77. 205/15.38.07
ISN	9600		40	CONTINUE	XMESH153
ISN	2600		-	CONT TIME	XMESH154
ISN	8000			IF (IQUT2.EQ.1) WRITE (6.208) ITER.ELE.ETE.DMAX	XMESH155
	0100		7.5		XMESHISE
ISN	1010			IF (DMAX.GT.TOL.AND.X(IMAX).LT.0.5) ELEM=ELE	XME SHIST
	0103				XMESH158
	9105			(IMAX.GT.TOL) GO TO 120	XMESH159
	0107			FLEL-ELE	XMESHIGO
	9010			ETEL=ETE	XMESHIGI
	0100		120	CONTINUE	XMESH162
ISN	0110			NTE=1	XMESH163
		v			XMESH164
		u		*** SET TOTAL NUMBER OF GRID POINTS ***	XMESH165
		U			XMESHIGE
ISN	0111	•		NI=NTE+NB-1	XMESHIGA
					COLUC SHAPE
		, ,		*** COMPUTE GRID DISTRIBITION AFT OF TE ###	XMFSH171
				!	XMESHI72
		U		*** BISECTION ITERATION USED ***	XMESHI73
		, ,			XMESHI74
ISN	0112			IF (IDUT2.EQ.1) WRITE (6,200)	XMESH175
ISN	0114			IF (TOME - 60-1) WRITE (6-210)	XMESHI76
ISN	9110			E=XDIST-XLE	XMESHI77
ISN	0117			E2L=0.0	XMESH178
ISN	91 10			E2H=0.01	XMESHI 79
ISN	0119			DO 113 ITER=1,20	XMESH180
ISN	0120			E2=(E2L+E2H) +0.5	XMESHIRI
ISN	0121			DXX=0.0	XMESH182
ISN	0122			DO 114 1=NTE ,NI	XMESH183
ISN	0123			IM=1-1	XMESHIBA
ISN	0124			X(1)=X(1M)+FUN(X(1M)-0.5)	XMESH185
ISN	0125			XX=X(1)-1.0	XMESH186
ISN	0126			DELX=E2#FAUX(XX)	XMESH187
ISN	0127			IF (DELX.GT.DXX) DXX=DELX	XMESH188
ISN	0129			X(1)=X(1)+0XX	XMESHIRO
ISN	0130		114	CONT TAKE	XMESHIGO
ISN	0131			IF (IDUT2.EQ.1) WRITE (6.211) ITER, E2.X(NI)	XMESH191
ISN	0133			IF (X(NI).6T.XTE.AND.X(NI).LT.XTE#1.1)60 TO 115	XMESH192
ISN	0135			IF (X(NI).6T.XTE*1.1) E2H=E2	XMESHIDS
ISN	0137			IF (X(NI) LT.XTE) E2L=E2	XMESH194
ISN	0139		113	CONTINUE REPORT OF THE PROPERTY OF THE PROPERT	XMESHIDS
ISN	0140		115	CONTINUE	XMESH196
		U			XMESH197
		*	***	化二甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	******XMESHIGB
		0			XMESHI 99
		v		*** COMPUTE GRID DISTRIBUTION FORWARD OF LE ***	XMESHEGO
		U			XMESH201
		u i		*** BISECTION ITERATION USED ***	XMES HZO2
		٠			VALUE STATES
No.	0141			TE (TOMES-EG-1) WRITE (6-212)	XMESHOOS XMFSHOOS
101	1			CHOOLESE GETT WATER	

2	LEVEL	2.2	(SEPT 76) XMESH DS/360 FORTRAN H EXTENDED DAY	DATE 77.295/15.38.07
	ISN	0145	NEW SAFET	XMESHOOK
	ISN	0146		XMESHOOT
	ISN	0147		XMESHEOR
	ISN	0148	DO 107 1TER=1,20	XMESH209
	ISN	0149		XMESHEFO
	ISN	0110		FIXCV123
	ISN	0151		FIXCY124
	ISN	0152		XMESH213
	ISN	0153	1x9=1x41	XMESH214
	ISN	0154	X(1X)=X(1XP)-FUN(X(1XP)-0.5)	XMESHETS
	ISN	0155		XMES NO 16
	ISN	0156	1F (DELX.6T.DXX) DXX=DELX	XMESH217
	ISN			XMESH218
	ISN		108	XMESH219
	ISN			XME SH220
	ISN	0162	<u>r</u>	XMESH221
	ISM	0164	15	XMESH222
	ISN	9910		XMESH223
	ISN	0168	101	XMES HOPA
	ISN	0169	109 CONTINUE	XMES H225
				XMESH226
			C 非非非常不可能的 化苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	**XMESH227
				XME SH228
			C *** NORMALIZE GRID DISTRIBUTION SO THAT X(NTE)=1.0 ***	XMESH229
			U	XMESH230
	ISN	0110	XNORM=1./X(NTE)	XMESH231
	ISN	0171		XMESH232
	ISN			XMESH233
	ISN		130	XMESH234
			· ·	XMESHP35
			C *** WRITE OUT GRID DISTRIBUTION ***	XMESH236
			C. H. Strand Strands Co. C. H. Strands Co. C. C. Strands Co. C. Strands Co. C. C. Strands Co. C. Strands Co. C. C. Strands Co. C. St	XMESH237
	ISN	0174	IF (10071.NE.1) RETURN	XME SH238
	ISN	0176	WRITE (6-215)	XMESH239
	ISN	0177	WRITE (6.216)	XMESH240
20	ISN		0x=0*0	XMESH241
	ISN	0119	2	XMFSH242
	ISN		IF (1.E0.1) GO TO 132	XMES H243
	ISN			XMESH244
	ISN	0183	College St. St. St. St. St. St.	XMESH245
	ISN	0184	132 CONTINUE	XME SH246
	ISN	0185		XMESH247
	ISN	0186	131 CONTINUE	XMESHP48,
	ISN	0187	RETURN	XMESH249
	ISN	9810	201 FORMAT (	/XMESHP5#
				XMESH251
	ISN	0189	202	XMESH252
			2	XMESH253
	ISN	010	203 FORMAT (	K.XMESH254
			SALES COMME	XMESHESS
	ISN	0191	204 FIRMAT (1H .15.5E16.8)	XMESH256
	ISN	2610	205 FURMAT (1H0.15HOUTER 1TER NO =.13.7H XN =.E16.9	XMESH257
			1 8H XNP = FI6.9.9H FINX = .E16.9.10H FUNXX = .E16.9/)	XMESH258

LEVEL 2.2 (SEP	(SEPT 76)	XMESH	092/30	05/360 FORTRAN H EXTENDED	DAT	DATE 77.295/15.38.07	PAGE
1119	206 FORM	AT (1H1.10X.31H #	SATA ATREO	IT (1H1.10X.31H seet AIRFOIL ITERATION ***** /)		XMESH259	
15N 0194	207 FORM	OT FORMAT (1HO, SH ITER, BX, 3HELF, 13X, 3HETE, 12X, 4	(+3HELF.13)	IT (1HD.5H ITER.8X.3HELF.13X.3HETE.12X.4HDMAX/)		XMES HEEO	
130	208 FORM	AT (1H .15.3E16.6)				XMESHE61	
	209 FORM	AT (1H1 - 10X - 33H #	D LAV ***	IT (1H1 . 10X . 33H seets AFT OF TE ITERATION seets /)		XMESHER?	
	210 FURMA	AT (1H0.5H ITER.9)	( . 2HE2 . 12X	SHX(NI)/)		XMESHP63	
Na.	211 FURM	AT (1H .15.2E16.6)				XMESHE64	
16.	212 FURM	AT (1H0//.10X.37H	***** FUR	IT (1HO//.10X.37H **** FORWARD OF LE ITERATION **** /)	(/ ****	XMESH265	
	213 FORM	AT (1140.5H ITER.9)	(+2HE1+12X	• 4HX(1)/)		XMESHERA	
	214 FURM	ATLL/5X . 36HINPUT D	NATA FOR IN	TILLES SCHINDUT DATA FOR INNER MESH GENERATOR /5X.	/5x.	XMESHE67	
	1 SHD	XLE=, F6.4, 5X, 5HDXI	E= . F6.4.5)	LE= ,F6 .4, 5X,5HDXTE= ,F6.4,5X,6HDXMAX=,F6.4/5X,3HNF=,12,11X,	W= 12.11X.	XMES HEEB	
	2 3HNH	H=,12,11X,6HXDIST=,F5.2,10X,4HXLE=,F5.2/1	.F5.2.10X	.4HXLE= ,F5.2/1		XMESHEGO	
	215 FURM	AT (1H1 . 10X . 43H #4	#10-X ***	IT (1H1.10X.43H ##### X-DIMECTION GRID DISTRIBUTION **** /)	(/ ***** NOI	XMESHE70	
15N 0203	216 FORM	FORMAT (1H0.2X,1H1.11X,1HX,14X,2H0X//)	(+1HX+14X+2	2HDX//)		XMESHP71	
	217 FORM	AT(1H .15.2E16.6)				XMESH272	
10	END					XMESH273	

124K BYTES OF CORE NOT USED

4682, SUBPROGRAM NAME = XMESH

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

204. PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

SOURCE STATEMENTS =

\*STATISTICS\*

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODAL(NONE)

15N 0002	SUBRCUTINE XC2(XLE,XTE,XTM1,XIN,JMAX,XCR,CORDX,10UT1,KR00T)	JNPT X367	1
		XC2	3
10年 10年 10日		xcs	
	C CRUDE X MESH GENERATOR - BAILEY BALLHAUS 3-D TRANSONIC CODE	. xcs	
CARGO SECTION		xcs	9
Married and American		XC2	1
15N 0003	DIMENSION XLE(1) • XTE(1) • XIN(1)	XC2	
15N 0004	DIMENSION X(30).XA(30).CORDW(30)	xC2	•
THE REAL PROPERTY.			10
	C * * PRELIMINARY SETUP		11
		XC2 1	12
15N 0005	CORDW(MROOT) = XTE (KROOT) - XLF (KROOT)	1NPTX369	6
9000 NSI	CMIN-CORDW(KR00T)	INPT X370	
	CHAX =CORDW(KROOT)	INPTX371	
	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	INDTX372	
6000 NSI	MIN = XI F (KDOTT)	INPT X373	. 6
	OF X X B	XC2 1	18
			10
	THE PERSON OF MAXIMUMS AND MINIMUMS		20
	TO 10 KERPOTT-KTM1	X	
	COMPANY = XTEIN) - XI FIN )		23
15W 0013	TO STATE OF THE PARTY OF THE PA		**
			36
	•		
		5	
		?	, ,
	ZO PECCHENIA SECUENTINE		62
			30
	C * * DEFINITION OF PLANFORM CONTROL POINTS		31
			32
15N 0020	X(1)=XLE(KMIN)+.05+CMIN	XC2 3	33
	X(2)=XLE(KMIN)++35+CMIN	XC2 3	34
	X(A) = X = E(X = 1 N) + • 65 + OX = X	XC2 3	35
	X(4)=XIE(KEIN)+-95+CEIN		36
ISN 0024	DEL = 3 a CM IN		37
			38
Color Constitution	* * CENTERING		30
and the second			0.
	NIE-6-6-MAX		*1
15N 0026	MD= JMAX-MU	XC2 .	15
	U	XC2 +	63
	C * * GENERATION LOOP		•
			45
15N 0027	A=SORT(2.1-CMIN/CMAX)	×	1
	NA=NIH-1	•	
	9-2-0		
		XC2 .	

F1XC V436 XC2 129 122 125 126 127 INPT X390 EPEX LON! INPT X391 SOEX TON! INPT X394 XC2 XC2 ; 103 FORMAT (42H NOT ENDUGH WING POINTS - CHANGE IN A MADE) 104 FORMATI /5X.29HCHECK CRUDE MESH GENERATION INSERT CRIDER CRUDER X GPID 102 FURMAT(//(5E15.51) FOP MAT (2E 15.5) WRITE(6,104) FORMAT(1015) 200 CONTINE RETURN 101 000 0124 0126 0128 15N 15N 15N 15N 15N ISN

120

XC2

121

XC2

MOPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINCCOUNT(55) SIZE(MAX) AUTOOBL(NONE)

u 2638. SUBPROGRAM NAME 128. PROGRAM SIZE = SOURCE STATEMENTS \*STATISTICS\*

DIAGNOSTICS GENERATED ç \*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

144K BYTES OF COPE NOT USED

IF (A.CE.0.9) GO TO 25

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RECALESTED OPTIONS OPT(2) . NOMAP

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	CE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTAT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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TIONS IN EFFECT	F NAME(MAIN) OPTIMIZE(2) LINECOUNT(5K) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NODECK ORJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1)	NODECK OBJE	CT NOMAP NOF	RMAT GOSTM	NONE )	NOANSF TERM FLAGE
ISN 0002	SUBROUTINE VISCFL (ITER)	(ITER)				VISCR. 2
	C C C C C C C C C C C C C C C C C C C	20 311 33110	and a votation	DIEDI ACCUENT CEECT	T CCCC	VISCR 3
		10 210	יייייייייייייייייייייייייייייייייייייי			VISCE S
15N 0003	COMMON / CPCAL /	AVCHGU(30)	AVCHGL (30).	DCPMXU(30)	. DCPMXL(30).	COMP BY 75
	-	CPN. (30)	CPOL(30) .	JMXL (30)	. CPNUI 30)	COMF 1X76
	~	CP(1)(30)	. EPS1 .	EPS2	. CMAXDT .	COMF IX77
	3	CMAXDR	CPTBAR .	SONPU(30)	. SONPL(30)	COMF BY 78
	Chaffiel words of Challent Str.	MACHUP (30)	. MACHDN(30).	SHKPU(30)	. SHKPB(30) .	COMF 1X79
	60	JMXDE301	. CORBAR .	CPU(30.50).	. OPL(30.50).	VSCFX4 1
	9	EMSO	NGRIDS .			COMP 1X81
1SN 0004	COMMON ALEVIX	DX(1(40)	. DXL(90) .	( 06) WINDX	. XDUM2(90) .	LEVIX 2
	AND THE PROPERTY OF THE PROPER	XDUM3(90)	. XDUM4(90) .	XDUM5(90)		LEVIX 3
10 M 20 M		335				LEVIX 4
15N 0005	COMMON / VITERD /		ETAOLD (80).		. (09	. COMF IX83
		DXLSTL(30,50)	. (0)	KTMOLF	· NKULD .	COMF IX84
	8	K70LD	KBOLD			COMF 1X85
15N 0006	COMMON / INTER /	106JIX	. ETA(30) .	27(20)	. (06)NIX .	INTER 2
		X1L(90)	. XIC(90) .	XIR(90)	. FTAL(30) .	INTER 3
	2	ETAC(30)	ETAR(30) .	COFU	· COEL ·	INTER 4
	3	ZCWU	. ZLM.	ZRVL	· xcvl .	INTER 5
	10 10 10 10 10 10 10 10 10 10 10 10 10 1	PDIM(30)	FDUM(30) .	XMIN	. XMAX	INTER 6
	2	YMAX	. ZMAX .	VMIN	. ZMIN	. PNTER 7
	•	ZLWJ	ZRVU			INTER 8
15N 0007	COMMON / WINGBC /	ZLM.	. ZPWU	TW1ST(30)		COMF 1X42
		WBCL (30,90)	•	WBCU (30,90)	•	COMF 1X43
15N 0008	COMMON / JUMP /	AZU.	. AZL .	870	. AZL .	JUMP 2
		CZU	, C7L ,	COFF		COMF 1X14
	~	PJUMP (30,90)	•	PCDEF(30,90)	•	COMF 1X15
	E	KP INDX (30,90)		PJUMPX (20.30)	30 )	COMP 1X16
15N 0009	COMMON / PARM /	A1	. A2	A3	. A4	DAPM 2
		AS	GAMMA .	MACHINO	. COE	PARM 3
	2	23	EMFXP(2)	CK1(30)	CK2(30)	PARM 4
	3	CK3(30)	CK4(30)	CK51(30)		COMP 1X10
	•	CK52(30,90)		CK1X(30)	. CK2X(30)	COMP TX 11
	5	BLOL	MCDE			COMF 1X12
15N 00 10	PEAL	MACHNO				COMP 1X13
15N 0011	COMMON / FLAGS /	IDISK	, ISAVE .	IPLOT	. MSHINT	FLAGS 2
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SOLV	WECPRT .	нясрят	. BODY	FLAGS 3
	2	FCP	. ISPAN .	IF IND	. ICRUDE .	. TNPTX 1
	n	EXTMSH	WEMESH .	IMAPP	. YAW .	INPTX 2
		IRUMP	· IVISC .	ITWIST	. IFOILT .	INPTX 3
	2	TRODIN	. AXISYM .	AREA	. IBLOUT	INPTX A
ISN 0012	LOGICAL	IDISK	. ISAVE .	IP1.0T	. MSHINT .	COMP TX 4
	-	SOLV	WBCPRT .	BBCPRT	· BODY ·	COMF IX 5
	2	FCP	. ISPAN .	IF INR	. ICRUDR .	COMP 1X 6
	3	EXTMSH ,	REMESH .	IMAPP	. YAW .	COMF IX 7
	THE RESERVE THE PROPERTY OF THE PARTY OF THE	IBIMP	· IVISC .	ITWIST	. IFOILT .	COMF 1X B

	•		2000	441644	4954	The out		C AL SHUD	
	- Connection	, 200	TOTAL SOL	. MAISTA	SEDI (30)	. IBLDO		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
			75 POG (30)			SE PHIN	,	COME 1117	
	. 2		DDDSL(30,60)	(09)				COMF 1118	
	COMMON	/ INDEX /	SWAX	. KMAX	. LMAX	. KTM1		. INDEX 2	
			KTIP	. KTIP1	. JALE	. LE(30)	60	. INDEX 3	
	2		JATE	. JTE(30)	. LVINGL	. LWINGU		. INDEX 4	
	3		SWAXI	. KHAXI	. LMAX!	. KR001		. COMF IX 1	
			14					INDEX 6	
	COMMON / WING	/ SNIR /	YPOOT	· XLER	. XTER	· MIP		. WING 2	
	1		XET	. XTET	. SREF	. SWEEP		. INPTX 7	
	2		MEI	. WEI(10)	. XLF1(10)	. STRUE		. INDTX 8	
	3		NTEI	. YTE1(10)	. XTE1(10)	SXPOS .		. INPTX 9	
			70000	. SSPAN	. THICK(11)	. ZWNGWL		. INPTX 10	
•	2		NPAN	. 10(11)	. THETP(11)	. MTWST		. AIRFOILS	
	9		YTHST(111)	. TMUX(11)	. INLX(11)	. XF(180.11)	0.11)	. AIRFOILS	
			ZF(180.11)	1. KSMTHS[11]	* XMOM	. XE(30)	60	. INPTX 11	
	80		XLEW(30)	· CORD(30)	. CORDW(30)	. CORDIN(11)	N(11)	. WING 10	
-	•		XTE(30)	. RFACT	. CHEAN	. XTEW(30)	30)	. WING 11	
	*		NSO	. NS1	. KX0(12)	· (X1(12)	23	. AIRFOILE	
-			NX0(12)	. WX1(12)	· 7X0(12-10)		WI (12.10).		
			XX0(12.10)				121		
			DXT0(12)			. WIIPLE	E	. AIRFOILL	
-	L		MTIPXI	. XLEWX(30)	. XTEWX(30)	· COPDX		CHORD 1	
-	u		CAV	dOX .	. XLEWP(30)	. XTEWP (30)	(30)	. VSCF X3 1	
-	9		KSWICH					VSCF X3 2	
	COMMON	/ XYCOE /	106.0E)X	. XIY(30,90).	. XIX(30)			COMP IX18	
			XIY3(30,90)					COMP TX19	
	2		X17K (30,90)	10				COMF IX20	
	NOWHOO	/ YANDPT /	KIX	. K2X	. K3x	. K4X		. COMF IX87	
	1		KSX	. K6X	. K7X	. K8X		. COMF IX88	
	2		KPIX	. KMIX				COMF TX89	
	COMMON	/ WISCOM /	025(50)	• DZU(50)	, OL (50)	. 00(50)	•	. COMF IX92	
	1		ZD(80)	. ZU(80)	. DOSTL(150).		(150)	. COMF IX93	
	2		SCFT(30)	. SCFB(30)	. CFFKL(30)	. CFFKU(30)	(30)	. COMF EX94	
			DDDSTU(30,50)	.50)	. DODSTL(30,50)	105		. COMF DESS	
			EPSW1 (20).	1. EPSM#2(30).		. CPLK1 (20)	(50)	. COMF IX96	
	5		CPUK2(20)	. CPLK2(20)	. DELUKI (20).	. DELLK1(20)	1(20)	. COMF 1X97	
	9		DELUK2 (20)	). DELLK2(20).	· CLGG(20)	. BPS1X(20)	(20)	. COMF TX98	
	1		EPS2X(20)	. VOTHET(150)		. TTEX(30)	30)	. COMF 1X99	
	8		CD TU(50)	. ETAK(30)	. CPVU(150)	. CPIL(50)	201	· COMF 1100	
	6		COMP(150)	1. SBRAL(150).	• DELSL(150)		150)	. COMF 1101	
	*		G-W(150)	. DELSTU(50).	· CF7L(150)	. DELSTL(50)	L(50)	. COMF 1102	
	8		CMU(2)	. CM.(2)	. PU(25)	. P. (25)	•	. COMF 1103	
	U		DELSU(150).	1. GEN(150)	. CPVL(150)	. SBRAU	SBRAU(150).	. COMF 1104	
	0		COMID(150)					COMP 1105	
	COMMON	COMMON / LDCAL2 /	XCBLX(41)		30)	· MAX		. FIXGX 1	
	-		NAXX	. xSEPU(20,30)	(0)			FIXGX 2	
	2		XSEPL(20,30)	30)		. MBCU1(30	(30.5	.SOJETKEK 3	
	COMMON	COMMON / VSFCOM /		. EXTNOU	. EXTNOL	. AFCBL1		. COMF 1X90	
	1		AF CBL2	. KI	• K0			COMF TX91	
	COMMON	/ WITTE	IVSAAX	· Isrop	. IVITER	. INCON		. INPTX 13	
	-		EPSVIS	*	· TOUTE	. ISTEPO	0	. INDIX IA	

### KNAPTE   KNAPTE   KNAPTE   ####################################	0022  LIGETCAL  0023  COMMON /SKINFR/  0026  DIMENSION  1  0027  DIMENSION  1  2  2  2  0028  DATA XCBL/0.00.00.0275  DATA XCBL/0.00.00.0275  0030  WCDE = MACHINERERER  0031  WCDE = MACHINERERERERERERERERERERERERERERERERERERER	KSWTHX . K2SWTH . KEND  KWRITE . LWRITE  1570P  GFVISC . GFTU . GFTL  KCRL(41) . SFPU(30) . SFPL  ETATE(30) . PJTE(30) . GFTL  SERAU2(150) . VGTH(150) . GFTL  SERAU2(150) . VGTH(150) . GFTL  SERAU2(150) . GFTL  SERAU2(150) . GFTL  SERUI(30) . SEPU(30) . GFTL  ETAK2(30) . GFTL  ETAK2(30) . GFTL  (SFPL(11),XDUM6(122) . GFTL  (SFPL(11),XDUM6(122) . (GFTL  (GFV(11),XDUM6(132)) . (GFTL  (GFV(11),XDUM6(12)) . (GFTL  (GFV(11),XDUM6(1	**************************************	· CV3FX
## COMPACT   1   1   1   1   1   1   1   1   1	0022	KWPITE  ISTOP  WECLOR (30,90)  CFV/ISC  CFTU  CFT(141)  SEPU(30)  SEPU(30)  SEPU(30)  SEPU(30)  SEPU(150)  SEPU(150)  SEPU(150)  CFV(150)  SEPU(150)  CFV(150)  SEPU(150)  CFV(150)  CFV(1	6.0	-
LUGICAL  COMMON / WINGX / W  COMMON / SKINFR / D  DIMENSION  1  DIMENSION  1  2  3  EQUIVALENCE  1  DATA XCBL / 0.0.0.0.275  2  B  DATA XCBL / 0.0.0.0.275  2  B  DATA XCBL / 0.0.0.0.275  2  B  DATA XCBL / 0.0.0.0.275  C  WCDE = MAO-MON ** EMEKY P  WRR 10.5=1  IF (K 1.6.0.0) K 1 = KROOT  IF (K 1.6.0.0) K 1 = K	0022 0023 0024 0025 0026 01MENSION 0026 0026 01MENSION 0027 0027 01MENSION 0028 0028 0027 0028 0027 0028 0028 0028	ISTOP WBCLOR (30.90)  GEVISC CTL XCRL(41) SEPU(30) SEPU(3		CYSEX
0024 CDMMON / WINGX / W 0026 DIMENSION 0026 DIMENSION 0027 DIMENSION 1 DIMENSION 1 DIMENSION 2 DIMENSI	0023 CDMMON / WINGX / W 0026 DIMENSION 0026 DIMENSION 0027 DIMENSION 0027 DIMENSION 0028 EQUIVALENCE 1	##CLUGR(30,90)		CV3FX
0024 COMMON /SKINFR/ C 0025 DIMENSION 1 1 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3	0024 COMMON /SKINFR/ C 0025 DIMENSION   E 1	CFVISC . CFTU . CFTL XCRL(41) . SFPU(30) . SFPL ETATE(30) . PJTE(30) . CP (11 DELS(150) . VOTH(150) . CP (11 SERAU2(150) . VOTH(150) . CFVL SERAU2(150) . CFUZ(30) . CFVL SEPU(1).XDUM6(42)) . CFTL (SEPL2(1).XDUM6(42)) . CFTL (SEPL2(1).XDUM6(12)) . (CFTL (SEPL2(1).XDUM6(12)) . (CFTL (CFTUZ(1).XDUM6(12)) . (CFTL (CFTUZ(1).XDUM6(112)) . (CFTL (CFTUZ(1).XDUM6(112)) . (CFTL (SERAU2(1).XDUM6(112)) . (CFTL (SEPUL(1).XDUM6(112)) . (SEPUL (SEPUL(1).XDUM6(112)) . (SEPUL (SEPUL(1).XDUM6(1122)) . (SEPUL (SEPULL) . (SEPULL) . (SEP	•••	COMP 1107
0025  DIMENSION  1  0026  DIMENSION  2  2  2  3  0028  EQUIVALENCE  1  2  3  0029  DATA XCBL/0.0.0.0.0.275  2  1  0.225,0.225,0.275  2  1  0.225,0.225,0.275  2  0.225,0.225,0.275  0.33  0.775.0.8.0.80.8255,0.8  0031  0032  0033  IF (K 1.6.0.0) K 1=KPODD  0034  IF (K 1.6.0.0) K 1=KPODD  0035  C  DO 26 K=K77.8KEX  C  DO 26 CONTINUE  C  DO 27  ETAK (KT IP) = 1.0  C  CONTINUE	0025 DIMENSION 0026 1 0027 DIMENSION 1 1 2 2 3 0028 EQUIVALENCE   1 2 3 4 4 5 6 6 7 7 8 8 8 9 9 0030 DATA XCBL/0.0.0.0.275 5 1 0.225,0.25,0.275 6 6 7 7 8 8 0031 WCDE=MAO************************************	ETATE(30) • SEPU(30) • SEPLESTE(30) • CP (1)  DELS(150) • VOTH(150) • CP (1)  SPRAUZ (150) • GF (1)  SPRAUZ (150) • GF (1)  SPRAUZ (150) • GF (1)  SEPU(13) • SEPU(30) • GF (1)  ETAK 2 (30) • GF (1)  (SEPU(1) • XDUM6 (42) ) • GF (1)  (SEPU(1) • XDUM6 (12) ) • (GF (1)  (CP (1) • XDUM6 (12) ) • (GF (1)  (CP (1) • XDUM6 (12) ) • (GF (1)  (CP (1) • XDUM6 (112) ) • (GF (1)  (CF (1) • XDUM6 (112) ) • (GF (1)  (CF (1) • XDUM6 (112) ) • (GF (1)  (CF (1) • XDUM6 (112) ) • (GF (1)  (SEPU(1) • XDUM6 (112) ) • (SEPU(1)  (SEPU(1) • XDUM6 (112) ) • (SEPU(1)	•••	SKINFR 2
0026 DIMENSION E  1	0026 DIMENSION E  1	ETATE(30) • PJTE(30) • CP(1)  BELS(150) • VUTH(150) • CFV(1)  SRBAL2(150) • CFV(1)  SEBL2(150) • CFV(2)  ETAK2(30) • SEPU2(30) • SCFT(2)  SEPU(1) • XDUM6(42)) • (SFT(1)  (SEPL2(1) • XDUM6(12)) • (BCU(1)  (ETATE(1) • XDUM6(12)) • (BCU(1)  (CP(1) • XDUM6(152)) • (PJT(1)  (CP(1) • XDUM6(152)) • (CFX(1)  (SFRAUZ(1) • XDUM6(1112)) • (CFX(1)  (SFRUZ(1) • XDUM6(1112)) • (SFRUZ(1) • XDUM6(1112)) • (CFX(1)  (SFRUZ(1) • XDUM6(1112)) • (SFRUZ(1) • XDUM6(11112)) • (SFRUZ(1) • XDUM6(11112)) • (SFRUZ(1) • XDUM6(1112)) • (SFRUZ(1) • XDUM6(1111	•	VSCFX396
1 1 2 2 2 2 2 2 2 3 3 3 3 4 4 4 4 4 4 4 4 4	1 1 2 2 2 2 3 3 3 3 4 4 5 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 5 5 6 6 5 6 5 6 5 6 5 6 5 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6	DELS(150) , WDTH(150) , GFV( SPRAUZ(150) , GFWUZ(150) , GFWUZ(150) , GFWLZ(130) , GFWLZ(130) , GFPUZ(1),XDUM6(42)), (SEPLZ(1),XDUM6(12)), (SEPLZ(1),XDUM6(12)), (GFLZ(1),XDUM6(152)), (GFLZ(1),XDUM6(152)), (GFLZ(1),XDUM6(152)), (GFLZ(1),XDUM6(152)), (GFLZ(1),XDUM6(112)), (GFLZ(1),XDUM6(112)), (GFRUZ(1),XDUM6(1112)), (G		. COMF 1173
0027 DIMENSION S  1	0027 DIMENSION S  1	SPRAUZ(150)  SPRALZ(150)  SPRALZ(150)  GVL  SEPU(30)  (SEPU(1), XDUM6(42))  (SEPU(1), XDUM6(12))  (CP(1), XDUM6(112))  (		
1 2 3 4 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1 2 3 4 4 5 6 7 7 8 8 9 4 8 8 9 7 7 8 8 9 7 8 8 9 7 8 8 9 7 8 9 7 8 8 9 9 7 8 8 9 8 9	SERAL2(150) SERVI(30) SERV	(150). GFKU2(30).	. COMF 1175
2	2 3 4 5 5 6 7 7 8 8 9 9 7 8 8 9 9 7 1 0.225,0.25,0.275,0.275,0.275,0.275,0.275,0.80,0825,0.275,0	SERVI(30) , SEPUZ(30) , SCFT ETAK2(30) (SEPUZ(1), XDUM6(42)), (SEPL2(1), XDUM6(12)) , (BCUI (ETATE(1), XDUM6(152)) , (PJTI (CP(1), XDUM6(152)) , (PJTI (CPV(1), XDUM6(152)) , (CFXI (CFXUZ(1), XDUM6(1112)) , (CFXI (CFKUZ(1), XDUM6(1112)) , (CFXI (SEPUZ(1), XDUM6(1772)) , (SEPUZETUZ) , (SE		
B B B B B B B B B B B B B B B B B B B	B B B B B B B B B B B B B B B B B B B	SEPU(1)		. COMF 117
EQUIVALENCE  B  A  B  DATA XCBL/0.00.00.00  A  B  DATA XCBL/0.00.00  1 0.225.00.25.00.275  2 0.5.00.525.00.275  2 0.5.00.525.00.275  C  WCOE = MAO-MOR-REMEXP  WGR INS=1  IF (K 1.6.0.0) K 1 = KROOU  FF (K 0.6.0.0) K 1 = KROOU  C  C  INITIALIZE VAPIPLES  C  DO 26 K = K 77 * K 8X  E TAOLD(K) = E TA(K)  E TAK (K 1) = 1.0  K TOLD = K 7X  K WOOLD = K 7X  K WOOLD = K 8X  INITER = IVITER + 1  ITEX (IVITER = 1 ITER  FF F F F F F F F F F F F F F F F F F	EQUIVALENCE  1 2 3 4 5 6 7 7 8 8 9 A BATA XCBL/0.00.00.00.27 1 0.225.00.25.00.275 2 0.55.00.525.00.275 2 0.55.00.525.00.275 2 0.55.00.525.00.275 2 0.025.00.525 2 0.025	(SEPU(1), XDUM6 (42)), (SEPL2(1), XDUM6 (152)), (BCU( (ETATE (1), XDUM6 (152)), (BJU( (CP(1), XDUM6 (512)), (VOTI (DELS(1), XDUM6 (512)), (VOTI (CFY(1), XDUM6 (112)), (CFY (CFY(2(1), XDUM6 (112)), (CFY (CFYL2(1), XDUM6 (1412)), (SEPU (SEPU1(1), XDUM6 (1412)), (SEPU (SCT2(1), XDUM6 (1412)), (SEPU (SCT2(1), XDUM6 (1922)), (SCFK (SGT2(1), XDUM6 (1922)), (SCFK (SOTZ(1), XDUM6 (1922)), (SCFK)		COMF 1178
2 3 4 5 6 7 8 9 4 8 9 4 8 9 4 8 9 1 0.225.0.25.0.275.0.	1 2 3 4 5 6 7 8 9 A 8 DATA XCBL_0.0.0.0.0.02 1 0.225.0.25.0.25.0.275. 2 0.5.0.525.0.25.0.275. 2 0.5.0.525.0.25.0.275. 2 0.5.0.5.0.5.0.275.0.0.002 1 10.225.0.25.0.25.0.275.0.002 1 0.225.0.25.0.25.0.275.0.002 1 0.225.0.25.0.25.0.275.0.002 2 0.775.0.8.0.8.0.825.0.0.0 1 F(K).6.0.0) K] = KRDOU 2 C INITIALIZE VAPIBLES C DO 26 K= KTX.8 KBX ETACLOK) = TAK(K) ETAK(K) = ETA(K) ETAK(K) = ETA(K) KTOLD=KTX KDOLD=KTX KDOLD=KTX KDOLD=KTX	(SEPL2(1), xDUM6(72)), (BCU( (ETATE(1), xDUM6(152)), (PJT( (CP(1), xDUM6(512)), (VOT( (DELS(1), xDUM6(512)), (VOT( (CFY(1), xDUM6(12)), (CFY( (SFR AU2(1), xDUM6(1412)), (CFY( (SFYL2(1), xDUM6(1412)), (SFR( (SFYL2(1), xDUM6(1412)), (SFR( (SFYL2(1), xDUM6(1412)), (SFR( (SFYL2(1), xDUM6(1412)), (SFR( (SFX(1), xDUM6(1922)), (SFR( (SGTZ(1), xDUM6(1922)), (SCFR( (SGTZ(1), xDUM6(1922)), (SGFR( (SGTZ(1), xDUM6(1922)), (SGFR( (SGFR( (SGFR(), xDUM6(1922)), (SGFR(), x		VSCF X449
2  4  5  6  7  8  9  A  B  DATA XCBL/0.0.0.0.0275  1 0.225.0.25.0.275  2 0.5.0.525.0.275  2 0.5.0.525.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825.0.275  0 0.775.0.8.0.825  0 0.775.0.800  0 0.775	2  4  5  6  7  8  9  A  B  DATA XCBL/0.0.0.0.0.275  1 0.225.0.25.0.25.0.275  2 0.5.0.5.5.0.25.0.275  2 0.5.0.5.5.0.80.0.875.0.0  C  WCDE =MAG-WIN*E-WEXP  WRR 10.5.1  1F(K 1.5.0.0) K 1=KPOOT  1F(K 1.5.0.0) K 1=KPOOT  1F(K 1.5.0.0) K 1=KPOOT  1F(K 1.5.0.0) K 1=KPOOT  2 0. TTS.0.80.0 M 1=KPOOT	(FTATE (1), xDUM6 (152)) , (PJT (CP(1), xDUM6 (512)) , (SB( (CFV(1), xDUM6 (512)) , (UVT (CFFW2(1), xDUM6 (1112)) , (CFY (CFFW2(1), xDUM6 (1112)) , (CFY (CFFW2(1), xDUM6 (1592)) , (CFK (SFPU1(1), xDUM6 (1772)) , (SFR (SFPU1(1), xDUM6 (1932)) , (SFR (SGFZ(1), xDUM6 (1932)) , (SFR (ETAK2(1), xDUM6 (1992)) , (SCFR (SGFZ(1), xDUM6 (1992)) , (SCFR (SGFZ(1), xDUM6 (1992)) , (SCFR	).XDUM6(102))	. EQUIVITS
3 6 7 7 8 8 9 4 8 9 4 8 9 7 1 0.225.0.25.0.275.0	3 6 7 8 8 9 4 8 9 4 8 9 7 1 0.225.0.25.0.275.0.2	(CP(1), xDUM6(212)) (SB( (DELS(1), xDUM6(512)) (VOT (CFY(1), xDUM6(1112)) (CFX (CFXU2(1), xDUM6(1112)) (CFX (CFYU2(1), xDUM6(1122)) (CFX (SFYU1(1), xDUM6(1722)) (CFX (SGT2(1), xDUM6(1822)) (SFX (SGT2(1), xDUM6(1822)) (SFX (SGT2(1), xDUM6(1822)) (SCFX (SGT2(1), xDUM6(1822)) (SGFX (SGT2(1), xDUM6(1822)) (SGFX (SGT2(1), xDUM6(1822)) (SGFX	(11) . xbu%(182))	. E001 W16
5 6 7 8 9 9 1 0.225,0.25,0.275,0.2075 1 0.225,0.255,0.275 2 0.5.0.5.0.5.0.575,0.6 C wcoe=naoenneemexp wgrins=1 if(k1.60.0)ki=kp001 if(k0.60.0)ki=kp001 if(k0.60.0)ki=kp001 if(k0.60.0)ki=kp001 if(k0.60.0)ki=kp001 if(k0.60.0)ki=kp001 if(k0.60.0)ki=kp1001 if(k0.60.0)ki=kp1001 if(k0.60.0)ki=kp101 C C initialize varible C C c initialize varible C C c c c initialize varible C c c c c c initialize varible C c c c c initialize varible C c c c c c initialize varible C c c c c c c c c initialize varible C c c c c c c initialize varible C c c c c c c c c c c c c c c c c c c	\$  6  7  8  9  9  1 0.225,0.25,0.275  2 0.5.0.525,0.275  2 0.5.0.525,0.275  2 0.5.0.6255,0.275  2 0.5.0.6255,0.275  2 0.5.0.625,0.275  3 0.775,0.8,0.825,0.275  C  WCDE=MAO+MTN **EMEXP  WGR IDS=1  IF (K I. E.O. 0) K I = K P D O O O O O O O O O O O O O O O O O O	(DELS(1), XDUM6(512)) , (VOT) (CFV(1), XDUM6(1112)) , (CFX (SFRAUZ(1), XDUM6(1112)) , (CFX (CFXUZ(1), XDUM6(1112)) , (SFX (CFXUZ(1), XDUM6(172)) , (SFX (SFXUZ(1), XDUM6(172)) , (SFXUZ(1), XDUM6(1822)) , (SFXUZ(1), XDUM6(1222)) , (SFXUZ(1), XDUM6(1222)) , (SFXUZ(1), XDUM6(12222)	) • X DUM6 (362))	. EQUIVITY
5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	5 6 7 8 9 4 8 1 0.225.0.25.0.0.275.0.0.00.0275.0.275.0.25.0.2	(CFV(1), XDUM6(812)) , (CFZ (SFRAUZ(1), XDUM6(1112)), (CFV (CFKUZ(1), XDUM6(1412)), (SFK (SFUL(1), XDUM6(1592)), (CFK (SFUL(1), XDUM6(1772)), (SFB (SCFZ(1), XDUM6(1832)), (SCFB (ETAKZ(1), XDUM6(1892)) (SCFZ(1), XDUM6(1892))	(11) .xDUM6 (6621)	. FOULVITE
6  DATA XCBL/0.00.00.02  1 0.225.00.25.00.275.02  2 0.5.00.525.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.275.00.20.275.00.20.2779.00.20.2775.00.20.2779.00.20.2779.00.20.2775.00.20.2779.00.20.2775.00.20.2779.00.20.20.20.20.20.20.20.20.20.20.20.20.	6  B  DATA XCBL/0.0.0.0.0.02  1 0.225.0.25.0.275. 2 0.5.05.05.50.275. 2 0.5.05.05.05.05.0775. C  WCDE=MACHON.REMEXP WGRINS=1 IF(K1.60.0)KI=KROOT IF(K1.60.0)KI=KROOT IF(K0.60.0)KI=KROOT IF(K0.60.0)KI=KOOT IF(K0.60.0)KI	(SFR AU2(1), xDUM6(1112)), (CFV (CFFKU2(1), xDUM6(1412)), (SFR (CFVL2(1), xDUM6(1592)), (CFFK (SFDU1(1), xDUM6(172)), (SFPU (SCFT2(1), xDUM6(1832)), (SCFR (ETAK2(1), xDUM6(1892)), (SGG OG S, 0, 0775, 0, 10, 0, 125, 0, 15	11. XDUM6(9621)	
PATA XCBL 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PATA XCBL/0.00.00.02 BATA XCBL/0.00.00.02 1 0.225.00.25.00.275 2 0.5.00.525.00.275 3 0.775.00.80.0825.00.6 0 WCDE =MAG-WIN #EMEXP WRR 105:1 1F(K1.60.0) K1=KROOT 1F(K0.60.0) K1=KROOT 1F(K0.60.0) K1=KROOT 1F(K0.60.0) K1=KROOT 1F(K0.60.0) K1=KROOT 1F(K0.60.0) K1=KROOT 2 MITTALIZE VAPIBLES C DD 26 K=K7% & K8X ETAR(K7)=ETA(K) ETAR(K7)=ETA(K) ETAR(K7)=ETA(K) ETAR(K7)=1.00 K70LD=K7X K70LD=K7X	(CFFKU2(1), XDUM6(1412)), (SBR (CFVL2(1), XDUM6(1592)), (CFFK (SEPU1(1), XDUM6(1772)), (SEPU (SGFT2(1), XDUM6(1832)), (SCFB (ETAK2(1), XDUM6(1892)) 25, 60.05, 0, 075, 0, 10, 0, 125, 0, 15	2(11) . XD UM6(1262)	. EQUIVIZO
B  A  BATA XCBL/0.00.00.00.02  1 0.225.0.255.0.275.  2 0.5.0.525.0.55.0.275.  C 0.00.025.0.50.0275.0.00  C 0.00.025.0.025.0.00.0275.0.00  F(K1.60.0)K1=KR0001  F(K0.60.0)K1=KR0001  F(K0.60.0)K1=KR0001  F(K0.60.0)K1=KR0001  F(K0.60.0)K1=KR0001  C 0.00.02 K=K77.0K8X  ETAM(K1)P = 1.00  K70LD=K7X  K80LD=K7X  K80	B  A  B  DATA XCBLO . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 .	(CFVL2(1),xDUM6(1592)),(CFFK) (SEPU1(1),xDUM6(1772)),(SEPU (SGFT2(1),xDUM6(1832)),(SCFB) (ETAK2(1),xDUM6(1892)) 25,60.55,0,075,0,010,0,125,0,15 25,0,33,0,325,0,335,0,375,0,4,0,	LP(1), XDUM6(1442)	
9  A  BATA XCBL/0.00.00.025  1 0.225.0.255.0.275.0  2 0.5.0.525.0.55.0.275  3 0.775.0.8.0.825.0.2  C  WCDE=MAQ**WREMEXP( WSR IDS=1  IF(K1.60.0)KI=KRODT  IF(K0.60.0)KI=KRODT  IF(K0.60.0)KI=KRODT  IF(K0.60.0)KI=KRODT  IF(K0.60.0)KI=KRODT  C  INITIALIZE VARIBLES  C  DO 26 K=K72.K8X  ETACLD(K) = TA(K)  C  C  INITIALIZE VARIBLES  C  MYTOLD=K7X  KBOLD=K7X  KBOLD=K8X  INITER=IVITER+1  ITEX(IVITER) = ITER  ITEX(I	9  A  BATA XCBLOO.0.0.0.025  1 0.225.0.255.0.275  2 0.5.0.550.555.0.275  2 0.5.0.550.8.0.825.0.  C  WCDE = AAOOMUR*EMEXP( NGR IDS=1  IF(KI.EO.0)KI=KROOTY  IF(KI.EO.0)KI=KROOTY  IF(KO.EO.0)KO=KTMI-ES  C  DO 26 K=KTA.KRX  ETAOLD(K) = TA(K)  ETAK(KTIP)=1.0  KTOLD=KTX  KROLD=KTX  KROLD=KTX	(SEPU1(1),xDUM6(1772)),(SEPU (SGFT2(1),xDUM6(1832)),(SCFB (ETAK2(1),xDUM6(1892)) 25,405,0,075,0,10,0,125,0,15 58,0,3,0,375,0,355,0,375,0,4,0,0	2(1).xpum6(1742))	. FOUT VI22
BATA XCBL_0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	BATA XCBL/0.00.00.025  1 0.225,0.255.0.275  2 0.55.0.55.0.275.0.8  2 0.775.0.8.0.825.0.275.0  C  WCDE=MAGMUNEMEMEXP  WGR IDS=1  IF (K I.6.0.0) K I=KRDO  IF (K I.6.0.0) K I=KRDO  IF (K I.6.0.0) K I=KRDO  F (K D.6.0.0) K I=KRDO  C  INITIALIZE VAPIBLES  C  DD 26 K=K77.0K  C  TAK (K I)=ETA(K )  ETA(K I)=ETA(K )  ETAK (K I)=ETA(K )  KTOLD=K7X  KROLD=K7X  KROLD=K7X	(SGFT2(1),xDUM6(1832)),(SCFB (ETAK2(1),xDUM6(1892)) 25,0.05,0.075,0.10,0.125,0.15 5,0.3,0.325,0.35,0.375,0.4,0.	(11) .XDUME(18021)	. EQUIVIZE
		(ETAK2(1),xDUM6(1892)) 25,0.05,0.075,0.10,0.125,0.15 5,0.3,0.325,0.35,0.375,0.4,0.	(1), XDUM5(1862))	. EQUINZA
		25.0.05.0.075.0.10.0.125.0.15 5.0.3.0.325.0.35.0.375.0.4.0.		EQUI VIZE
	- NW	5.0-3-0-325-0-35-0-375-0-4-0-	0-175.0-2.	VISCRE
			25.0.45.0.475.	VISCR.69
		.575.0.60.0.625.0.65.0.675.0.	.0.725.0.75.	VISCR.70
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0056 DYR.STL(K.J)=0.0 0066 DORSTU(K.J)=0.0 0066 DORSTU(K.J)=0.0 0063 DORSTU(K.J)=0.0 0065 DORSTU(K.J)=0.0 0066 COUK.J)=-2.0 0066 COUK.J)=-2.0 0066 COLL CPCALC 0066 CALL CPCALC 0066 CALL CPCALC 0066 CALL CPCALC 0070 CALL CPCALC 0070 CALL CPCALC 0071 COMPUTE THE LIFT COEFFICIENT 0070 CALL CPCALC 0071 CALL CPCALC 0072 CALL CPCALC 0073 CALL CPCALC 0074 CALL CPCALC 0075 CALL CPCALC 0077 CALL CPCALC 0077 CALL CPCALC 0078 CALL CPCALC 0078 CALL CPCALC 0078 CALL CPCALC 0079 CALL (IVITER)=CPL(K.J.J.) 0077 CALL CPCALC(CLG) 0078 CALL CPCALC 0078 CALL CPCALC 0079 CALL (IVITER)=CPCL(K.J.J.) 0070 CALL CPCALC 0071 CPCALC (IVITER)=CPCL(K.J.J.) 0071 CPCALC (IVITER)=CPCL(K.J.J.) 0072 CALL CPCALC (CLG.) 0073 CALL CPCALC 0074 CALL CPCALC 0075 CALL CPCALC 0076 CALL CPCALC 0077 CALL CPCALC 0077 CALL CPCALC 0078 CALL			5	1 K=1•30	VISCF105
00550 DON'S TULK, 1) = 0.0 00610 DOST VIK, 1) = 0.0 0062 DOST VIK, 1) = 0.0 0063 DOST VIK, 1) = 0.0 0064 DOST VIK, 1) = 0.0 0065 DOST VIK, 1) = 0.0 0066 S CONTINE 0067 CALL CPCALC 0067 CALL CPCALC 0077 CALL CPC			NA O	LSTL(K.J) =0.0	VISCF106
0066 0005 THE CONTINUE OF CALL CPCALC COMPUTE THE LIFT COEFFICIENT  COMPUTE THE COOPFICIENT  COMPUTE THE LIFT COEFFICIENT  COMPUTE THE COUPLE THE COUPLE COEFFICIENT  COMPUTE THE COUPLE THE COEFFICIENT  COMPUTE THE COUPLE THE COEFFICIENT  COMPUTE	_	6	NA OX	LSTU(K.J)=0.0	VISCF107
00641 DD0514(K, J) = 0.0 0065 DD054(K, J) = 0.0 0066 S D0741ME 0066 S D0 24 J= 1.41 0067 C 24 MCBL(J) = MCBL(J) 0067 C CALL CPCAL 0069 C CALL CPCAL 0071 C CALL CLOST THE LIFT COEFFICIENT 0072 C CALL CLOST THE LIFT COEFFICIENT 0073 C CALL CLOST THE LIFT COEFFICIENT 0074 C CALL CLOST THE LIFT COEFFICIENT 0075 C CALL CLOST THE LIFT COEFFICIENT 0077 C CALL CLOST THE LIFT COEFFICIENT 0077 C CALL CLOST THE LIFT COEFFICIENT 0078 C CALL CLOST THE LIFT COEFFICIENT 0079 C CALL CLOST THE LIFT COEFFICIENT 0070 C CALL CLOST THE LIFT COEFFICIENT 0071 C CALL CLOST THE LIFT COEFFICIENT 0072 C CALL CLOST THE LIFT COEFFICIENT 0073 C CALL CLOST THE LIFT COEFFICIENT 0074 C CALL CLOST THE COOT THE C		0	8	DSTU(K.J)=0.0	VISCFIDE
00662		-	8	DSTL(K,J)=0.0	VISCF109
0063 10051(K.J)=0.0 0064 1 CPL(K.J)=-2.0 0065 5 CONTINGE 0065 5 CONTINGE 0067 CALL CPCALC 0072 CALL CPCALC(CL6) 0072 CALL CPCALC(CL6) 0072 CALL CPCALC(CL6) 0073 CPCK(IVITER)=CPL(KIJ) 0074 CPCK(IVITER)=CPL(KIJ) 0075 CPCK(IVITER)=CPL(KIJ) 0077 CRCK(IVITER)=CPL(KIJ)		2	8	U(K, J)=-2.0	VISCF110
0066 5 CDNTIME 0065 5 CDNTIME 0066 C 24 XCBLX(J)=X(D(J) 0067 C ALL CPCALC 0069 C CALL CPCALC 0070 C CALL CLCC(CLC) 0071 C CALC CLCC(CLC) 0072 C CALC CLCC(CLC) 0073 C CALC CLCC(CLC) 0074 C CALC CLCC 0075 C CALC CLCC 0076 C CALC CLCC 0077 C CALC CLCC 0077 C CALC CLCC 0078 C CALC CLCC 0079 C CALC CLCC 0070 C CALC CLCC 0070 C CALC CLCC 0071 C CALC CLCC 0071 C CALC CLCC 0072 C CALC CLCC 0073 C CALC CLCC 0074 C CALC CLCC 0075 C CALC CLCC 0076 C CALC CLCC 0077 C C CACC CLCC 0077 C CACC CLCCC 0077 C CACC CLCCC 0077 C C CACC CLCCC CACC		3	8	DSL(K,J)=0.0	STRVSIAI
C CALL CPCALC  C CALL CPCALC  C CALL CPCALC  C CALL CLCALC (CLG)  C CALL		•	8 -	L(K,J)=-2.0	VISCFILL
S		v			VISCFI12
0.066 0.06 24 XGLX(J)=XCDL(J) 0.067 0.068 0.071 CALL CPCALC 0.072 0.073 0.074 0.075 0.075 0.077	SN 006	•		NTINE	VISCFII3
24 XCBLX(J)=XCDL(J)  C DETERMINE THE PRESSURE DISTRIBUTION  C CALL CPCALC  C CALL CPCALC  C CALL CPCALC  C CALL CLCALC(CLG)  C		9	8	2¢ J=1,41	STRVSIAZ
CALL OPCALC  CALL		2		BLx(J)=XCBL(J)	STRVSIA
COMPUTE THE PRESSURE DISTRIBUTION  COMPUTE THE LIFT COEFFICIENT  COMPUTE THE COEFFICIENT  COMPUTE THE LIFT COEFFICIENT  COMPUTE THE COEFFICIENT  COMPUTE THE LIFT COEFFICIENT  COMPUTE THE COEFFICIENT  C		v			VISCETTR
CALL CPCALC  CALL CPCALC  CALL CPCALC  C COMPUTE THE LIFT COEFFICIENT  C COMPUTE THE LIFT COEFFICIENT  C CLGG(IVITER) = CLG  0070  C CLGG(IVITER) = CLG  0071  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  11= JTE(K1) - JLE(K1) + 1  0072  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  11= JTE(K1) - JLE(K1) + 1  0074  O075  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  O077  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS		0			VISCEITO
C CALL CPCALC  C CALL CPCALC  C CALL CLORET THE LIFT COEFFICIENT  C CALL CLCALC(CLG)  OOTO  C CLGG(IVITER)=CLG  OOTO  C CLGG(IVITER)=CLG  OOTO  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  OOTS  JI=JTE(KI)-JLE(KI)+1  OOTS  OOTS  OOTS  JI=JTE(KI)-JLE(KI)+1  OOTS  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OOTS  C SAVE CP8S AT SELECTED STATIONS  C SAVE CP8S AT SELEC		v	٥	ETERMINE THE PRESSURE DISTRIBUTION	VISCFIZO
C COMPUTE THE LIFT COEFFICIENT  C COMPUTE THE LIFT COEFFICIENT  C CALL CLCALC(CLG)  OO70  C CACL CLCALC(CLG)  OO71  WRITE(6,20e) CLG  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OO72  OO73  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OO75  OO76  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OO77  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OO77  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OO77  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OO77  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  OO77  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP8S AT SELECTED STATIONS  C SAVE CP8		v			VISCEIZE
C COMPUTE THE LIFT COEFFICIENT  C CALL CLCALC(CLG)  0070  CALC CLCALC(CLG)  0071  C CLGGIVITER)=CLG  0071  C CLGGIVITER)=CLG  0072  C AJEJTE(KI)-JLE(KI)+1  0072  C JI=JTE(KI)-JLE(KI)+1  0074  C JI=JTE(KI)-JLE(KI)+1  0075  C DOWX (IVITER)=CPU(KI,JI)  0074  C DOWX (IVITER)=CPU(KI,JI)  0075  C DOWX (IVITER)=CPU(KI,JI)  0076  C DOWX (IVITER)=CPU(KO,JI)  C CPLX (IVITER)=CPU(KO,JI)			3	רד סאכעות	VISCEIZE
C COMPUTE THE LIFT COEFFICIENT  C CALL CLCALC(CLG)  C CLGG(TVITER) = CLG  C CLGG(TVITER) = CLG  C CLGG(TVITER) = CLG  C CLGG(TVITER) = CLG  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CP0S AT SELECTED STATIONS		U			VISCF123
C COMPUTE THE LIFT COEFFICIENT  C CALL CLCALC(CLG)  0070  C CLGG(TVITER) = CLG  0071  C CLGG(TVITER) = CLG  0072  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPBS AT SELECTED STATIONS  C SAVE		v			VISCF124
CALL CLCALC(CLG)  0070  CLGG(IVITER)=CLG  0071  C CLGG(IVITER)=CLG  0071  C SAVE CP6S AT SELECTED STATIONS FIR CONVERGENCE HISTORY  C SAVE CP6S AT SELECTED STATIONS FIR CONVERGENCE HISTORY  0072  JI=JTE(KI)-JLE(KI)+1  0073  CPLK1(IVITER)=CPU(KI,JI)  0074  JI=JTE(KO)-JLE(KO)+1  C SAVE CP6S AT SELECTED STATIONS FIR CONVERGENCE HISTORY  0075  JI=JTE(KI)-JLE(KI)+1  C DUK 1 (IVITER)=CPU(KO,JI)  C CPLK2 (IVITER)=CPU(KO,JI)  C CPLK2 (IVITER)=CPL(KO,JI)  C CPLK2 (IVITER)=CP2 (FOS.JI)  C CPLK2 (IVITER)=CP3 (FOS.JI)  C CPLK2 (IVITER)=CP4 (FOS.JI)  CPLK2 (IV		U	8	MPUTE THE LIFT COEFFICIENT	VISCF125
C CALL CLCALC (CLG)  00 69		0			VISCF126
CALL CLCALC (CLG)  0070  CLGG(IV)TER) = CLG  0071  WRITE(6,200) CLG  SAVE CPGS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPGS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C JI=JTE(KI)-JLE(KI)+1  0072  JI=JTE(KI)-JLE(KI)+1  0074  OPT CPLK2(IV)TER) = CPU(KI,JI)  0075  CPLK2(IV)TER) = CPU(KO,JI)  CPLK2(IV)TER) = CPL(KO,JI)  CONTS CPLK2(IV)TER) = CPL(KO,JI)  CONTS CPLK2(IV)TER) = CPL(KO,JI)  C WRITE(6,100) FPS1, EPS2  C WRITE(6,212)		U			STRVS144
0070 CALL CLCALC(CLG)  0070 CLGG(IVITER)=CLG  0071 C CLGG(IVITER)=CLG  0072 C SAVE CPGS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPGS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPGS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  0072 C JI=JTE(KI)-JLE(KI)+1  0073 CPLK1(IVITER)=CPL(KI,JI)  0074 JI=JTE(KO)-JLE(KO)+1  0075 C PUK2(IVITER)=CPU(KO,JI)  0076 C EPSIX(IVITER)=CPL(KO,JI)  0077 C EPSIX(IVITER)=EPSI*EPSVIS  0078 C EPSIX(IVITER)=EPSI*EPSVIS  0079 C WRITE (G*100) EPSI*EPSV  C WRITE (LUT ITERATION SUMMARY		v			STRVSIAS
C CLGG(IV)TER) = CLG  0070  C SAVE CPGS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C SAVE CPGS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C JI=JTE(KI)-JLE(KI)+1  0072  C JI=JTE(KI)-JLE(KI)+1  0074  DOTA  DOTA  DOTA  C JI=JTE(KI)-JLE(KI)+1  C JI=JTE(KI)-JLE(KI)-JLE  C JI=JTE(KI)-JLE(KI)-JLE  C JI=JTE(KI)-JLE(KI)-JLE  C JI=JTE(KI)-JLE  C JI=JTE(KI)		. 6	5	רו שכארנושפו	STPVS146
0070 CLGG(IVITER)=CLG 0071 WRITE(6,208) CLG C SAVE CP6S AT SELECTED STATIONS FOR CONVERGENCE HISTORY C JI=JTE(KI)-JLE(KI)+1 0072 JI=JTE(KI)-JLE(KI)+1 0073 CPUK1(IVITER)=CPU(KI,JI) 0074 CPUK2(IVITER)=CPU(KI,JI) 0075 CPUK2(IVITER)=CPU(KO,JI) 0076 CPUK2(IVITER)=CPU(KO,JI) 0077 C EPSIX(IVITER)=EPSI*EPSVIS 0078 EPSEX(IVITER)=EPSI*EPSVIS 0079 CFPSIX(IVITER)=EPSI*EPSVIS 0070 C WRITE(0,100) FPSI,FPSZ C WRITE(0,100) FPSI,FPSZ C WRITE(0,212)		U			VISCF128
0071 WRITE(6,208) CLG  C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C JI=JTE(KI)-JLE(KI)+1  0072 CPUK!(IVITER)=CPU(KI,J)  0074 CPUK:(IVITER)=CPU(KI,J)  0075 CPUK:(IVITER)=CPU(KO,J)  0076 CPUK:(IVITER)=CPU(KO,J)  0077 CPUK:(IVITER)=CPU(KO,J)  0078 CPS:X(IVITER)=CPS:(FPSVIS  0079 CPS:X(IVITER)=CPS:(FPSVIS  0070 CPS:X(IVITER)=CPS:(FPSVIS  0071 CPS:X(IVITER)=CPS:(FPSVIS  0071 CPS:X(IVITER)=CPS:(FPSVIS  0072 CWRITE(0,100) FPSI,FPSVIS  0080 C WRITE:(0,100) FPSI,FPSZ  C WRITE:(0,100) FPSI,FPSZ		0	9	GG(IVITER) =CLG	VISCEIZO
C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY C JI=JTE(KI)-JLE(KI)+1 0072			*	1TE(4,208) CLG	VISCFIZO
C SAVE CP&S AT SELECTED STATIONS FOR CONVERGENCE HISTORY  C J1=JTE(K1)-JLE(K1)+1  0073		v			VISCEIR
C SAVE CPBS AT SELECTED STATIONS FOR CONVERGENCE HISTORY  0072		v			VISCEIRE
0072 JI=JTE(KI)-JLE(KI)+1 0073 CPUKI(IVITER)=CPU(KI,JI) 0074 CPLKI(IVITER)=CPU(KI,JI) 0075 JI=JTE(KO)-JLE(KO,JI) 0076 CPUK2(IVITER)=CPU(KO,JI) 0077 C EPSIX(IVITER)=EPSI4EPSVIS 0079 EPSZX(IVITER)=EPSI4EPSVIS 0079 C WRITE(6,100) EPSI,6PSZ C WRITE(0,212)		v	SAV	E CPRS AT SELECTED STATIONS FOR CONVERGENCE HISTORY	VISCEIRE
0072  0073  0074  0075  CPUK 1 (1V1 TE R) = CPU (KI -J.1)  0075  J1 = JTE (KO) - JLE (KI -J.1)  0075  CPUK 2 (1V1 TE R) = CPU (KO -J.1)  0077  CPUK 2 (1V1 TE R) = CPU (KO -J.1)  0077  CPUK 2 (1V1 TE R) = CPS 4 EPS VI S  0079  EPS 2 X (1V1 TE R) = EPS 2 4 EPS VI S  0070  CPUK 2 (1V1 TE R) = EPS 1 S 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		v			VISCENTA
0073		2	15	=JTE(KI)-JLE(KI)+1	STRVSIAT
0074		2	8	UK ICIVITER)=CPU(KI -1)	VISCETAR
0075  J1=JTE(KO)-JLE(KO)+1  0076  CPUK2(IVITER)=CPU(KO,J1)  0077  CPLK2(IVITER)=CPU(KO,J1)  0078  EPSIX(IVITER)=EPSI*EPSVIS  0079  WRITE(6,100) EPSI*EPSVIS  C WRITE (UT ITERATION SUMMARY  C WRITE(6,212)			8	LX ( TV TER) = CP ( K1 - 1.)	VICCEIRT
0076		9	-	=JTE(KO)-J(E(KO)+1	STOVETAB
0077			8	IN 2 ( 12) TEB) = CBU(KO_III)	0+16 +116
0078		1	8	K 2 1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	VISCEISE
0078			1		VISCEISE
0079 EPSZKIVITER)=EPSZ#EPSVIS 0080 C WRITE (6,100) EPSI, EPSZ C WRITE (UT ITERATION SUMMARY			C		VISCFIA
OOBO WRITE GUT ITERATION SUMMARY C WRITE GUT ITERATION SUMMARY C WRITE(6.212)			8		VSCFX2 6
C WRITE OUT ITERATION SUMMARY C WRITE OUT ITERATION SUMMARY C WRITE(6.212)			1	SCALLY IER EPSCHEPSVIS	VSCFX2 7
C WRITE OUT ITERATION SUMMARY C WRITE(6.212)			*	ITF(6,100) FPS1,FPS2	VISCFIA3
C WRITE COI ILERATION SUMMARY C WRITE(4.212)					VISCF144
OOM!		. (		KINE UUT ITERATION SUMMARY	VISCFIAS
			8		VISCFI46

WRITE(6.214)   DO 110 KEYTY-KBX	05/360 FORTPAN H EXTENDED DATE 77.295/15.39.56	VISCFIAB	STRVS149	18# 67	18M 68	K.DCPMXIMK).CPMJ(K).CPOU(K).JMXU(K).AVCHGU(K)	VISCFISI	VISCFISZ		WRITCI6,2181 K,DCPMXL(K),CPML(K),CPOL(K),JMXL(K),AVCHGL(K) VISCF154	VISCFISS	CPITERION	VISCF158		222) ale		VISCF162	Selevine		20 30	2	SSISVATS	STRVS156	STRVS1S7	STRVS158	STRYSIS9	STRVS160	STRVSIGI	STRVS162	STRVS163	STRVSI64	STRY S165		VISCEITZ		NOCE ALOS	VISCE!	VISCFICE	VSCFXIO3		STRIP AND COMPUTE MACH NUMBER FOR PRINT OUT VISCETS	VISCEIRI	VISCEINZ VECE O					MEXP(1)) *CPU(K*J)
	161	WRITE(6,214)			DELPTE(IVITER oK) = P.JUMP	WRITE(6.218)	WRITE(6,216)	WRITE(6,214)	-	-	C STANDARD IN CORP. STANDARD OF			INCONT. INCON	PFICEGALT.0.05.AND.INCOM	FFI CLG-LT-0-05-AND - I WCM	C STREET, STRE	DELICE: 0	Section of the section	TELLINGUAL ED 2. AND ABOUT	IF(IVITER GT.IVSMAX) GO		IFIYAW) KEBL =K7X	DO 200 K=K7X+KPBL	NX=JTE(K)-JLE(K)+1	NXOL D=NX	JXTE=JTE (K)	ü	N	33=J-JXLE+1		N		U		DITER SOLD E CTALES		-	0001	100 m of the	MUT CP IN LOCAL		13- 10- C   1-1   1-1		WALLE BELY KIK . JE ) - XI FW(K)	XQUT(1)=(X(K, J3)-XLEW(K))/CORDW(K) CP1U(1) =(PU(K, J)	XQUT (J)=(X(K,J3)-XLEW(K) CP1U(J) = CPU(K,J) CP1L(J) = CPL(K,J)	XQUT (J)=(X(K,J3)-XLEW(K) CP1U(J) = CPU(K,J) CP1L(J) = CPL(K,J) EMJ=EMSO-0,5*(GAMA+1,)*
	2.2	90082	0083	4800	900	9800	1900	o.	6800	9				1600	2600	800		200	5 6		2010	-	9010	9010	0100	0110	0111	01 12	0113	0114	0115	0116			2 3		410	2010	1710			6000	2710	١			0125	0124 0125 0125 0127

DATE 77.295/15.39.56	VISCFIRE	VISCF189	VISCFISO	VSCFX104	VSCFX105	VSCFX106	VISCF192	VISCF193	VISCFIOA	STRV5169	STRVS170	STRVSI71	STRVS172	VSCF X107	VISCF198	VISCF201	VISCF202	VISCF203	VISCF204	STRVS173	STRVS174	VISCF210	SKNF IX 1	VISCF212	STRVS175	STRVS176	STRVSITT	STRVS176	STRVS179	STRVSIBO	STRVSIBI	STRVS162	STRVSIB3	VSCFX109	STRVSIBS	STPVSIR6	STRVSIBT	VSCF X110	STRVSIR9	STRVS190	STRVS191	STRV5192	STRVSIO3	STRVS194	STRVS195	STRV5196	STRVS197	STRVS198	STRVS199	STRVS200	STRVS201	STRVS202	STRVSDOR
VISCFL 05/360 FORTRAN H EXTENDED	1F(EML.LT.0.0) EML=0.001		EML=SORT(EML.)	FF(LWRITE.NE.0)60 TO 60	WRITE(6,204) J.XQUT(J).CPTU(J). CPTL(J).EMU.EML			CONVERT INVISCID OF TO VISCOUS CP		MANY = MX	MXX=1	CALL SLOPY( XOUT , CP IU , NNX , XCBLX , NNXX , CPVU, CPVUP)	CALL SLOPY(XOUT, CP 11, NNX, XCBLX, NNXX, CPVL, CPVUP)		KENDS=0		COMPUTE LOCAL RE AND SWEEP ANGLE		CHISWP=0.5	XPLOC=XLEVP(K)+CHISVP+(XTEVP(K)-XLEVP(K))	SUP ANG=AT AN (XPLOC)	ISTATIVE	REL =RE+CORDW(K)/CMEAN	REL = REL+COS (SWPANG)		DO 54 ISURF=1,2	DO 62 1=1.41	GP(1)=CPVU(1)	IF(1SURF-E0.2) CP(1)=CPVL(1)	XTRN=XTRNT	IF(15URF-E0.2) XTRN=XTRNB	ISTATW-K	IF(15URF.E0.2) ISTATN=-K	IF(15URF-EQ.1-AND-KSWICH-EQ.1)GO TO 83	DO 82 -1 - KSMTHX	מנד	CALL	1 NMAX. ISTATN, ITRANS. I DUTP , ISTEPO, MACHNO, XTRN, SWPANG. I UNIT)		IF(154PF-E0.2) G0 T0 65	KVOM XU=KVOM	SEPU(K)=SB(KVOM)	<b>60</b> T0 66	CONTINUE		SCPL(K)=SB(KVDM)	CONTINUE		JF(15URF.E0.2) GO TO 63	SBRAU(1)=58(1)	DELSU(T)=DELS(T)	WOTHET(1)=WOTH(1)	CFVU(1)=CFV(1)
16)						9																							62							82	83							65			8						
(SEPT 76)							v	U	v							v	v	v							U														U														
2.2	0131	0133	0134	0135	0137	0138				139	0140	1410	0142	143	0144				0145	146	1410	0146	140	150		151	2510	0153	0154	9510	0157	0159	0100	0162	0164	9910	166			1910	6910	0110	1710	0172	6173	1110	0175	0176	1110	0110	0180	1810	0182
		ISN O								SN 01										ISN 01						SN 01	ISN O	O NSI					ISN O		ISN O																		ISN O
LEVEL	-	=	=	2	=	-				=	=	-	-	-	-				=	=	=	-	=	=		-	=	=	2	=	-	-	=	-	=	-	=			=	=	=	-	-	2	-	1	=	=	-	-	-	=

2.2 (SEPT 0183		G-ZU(1)=CF2(1)	STRVS204	
			STRVS205	
	63	-	STRV S206	
		DELSE(T)=DELS(T)	STRVS207	
		CEM (1)=COUNTY	STRVEOR	
		CE21 (1)=(E2 (1)	STRVSOTA	
	99		STRVSIII	
	5	195	STRVS212	
0			STRVS213	
U			VISCF227	
		ACORCT=COS(SWPANG)	VISCF228	
		DO 55 JJ=1,KVOMXU	V15CF229	
	S.	DELSU(JJ) #DELSU(JJ) #XCORCT	VISCFZ30	
	88		VISCESI	
U			VISCF233	
0			VISCF234	
U		COMPUTE THE LOCAL DRAG COEFFICIENT	VISCF235	
U		The second secon	VISCF236	
		DO 70 J=1 ,K VOMXU	VISCE237	
		CFVU(J)=CFVU(J)#CDS(SMPANG)+CFZU(J)#SIN(SMPANG)	VSCFX2 8	
	-	140	VSCT XZ 9	
		CYORIS=CYORIS	VSCFX210	
		CALL SIMP (CFFKU2(K) SRRAUZ GFVUZ KVOMUZ ) FRT)	VSCFXOTO	
		(FFKU(K)=CFFKU2(K)	VSCFX213	
		DO 75 J=1 ,KVOMXL	VISCF240	
		CFVL (J)=CFVL (J)+COS(SWPANG)+CFZL (J)+SIN(SWPANG)	VSCF X214	
			VSCF X215	
	75	-	VSCFX216	
		KWOML2=KWOWXL	VSCF X217	
		CALL SIMP(CFFKL2(K), SBRAL2, CFVL2, KVOML2, IFRL)	VSCFX218	
		CFFKL(K)=CFFKL2(K)	VSCFX219	
		SCFT(K)=CORD(K)+CFFKU(K)	VISCF243	
		SCFB(K)=CORD(K)+CFFKL(K)	VISCF244	
		SCFT 2(K)=SCFT(K)	VSCF X220	
		SCFB2(K)=SCFB(K)	VSCFXZZI	
		ETAK2(K)=ETA(K)	VSCF X222	
, ,			VISCF245	
		INTERPOLATE THE SOLUTION TO THE INVISCID GRID	VISCE246	
,		THE PROPERTY OF THE PROPERTY O	VISCEC	
			STRVSTO	
		CALL SCOPY (SBRAU DELSU NINX - XDUT NINXX - DELSTY - DOSTRY)	STRVOIR	
		NAX=K VOMXIL	STRVS219	
		CALL SLOPY (SBRAL DELSE , NNX , XOUT, NNXX, DELSTL, DOSTL)	STRVS220	
U			VISCF250	
o			V15CF251	
0		UPDATE WING SLOPE BOUNDARY CONDITION	V15CF252	
0 (			VISCESS	
) (			VISCF254	

VISCF304

v

	F(IVSMAX-LT.0) GO TO 21	V15CF305 V15CF306
		VISCESOT
	WBCU (K.J) = WB CURR (K.J) + COFU+WCO E+BL DU	STRV S222
C/20 NSI		VISCESSO
		VISCEST
SN 0276	IF(YAM) DXLSTU(K+1.J)=DXLSTU(K.J)	VISCF312
		VISCESIS
		VISCF314
		VISCESIS
	IF(YAW) WBCU(K+1.J)=WBCU(K.J)	VISCF316
1SN 0286	IF(YAM) WBCL(K+1.J)=WBCL(K.J)	VISCF317
	O (19) 10 (19)	VISCF318
	IF(LWRITE.NE.O)GO TO 21	VSCFX113
ISN 0290	WRITE(6,207) J.XOUT(J), DELSTU(J), CHANGU, BLOW, DDSTU(J), DELSTL(J),	VSCF X114
	TETRACE COLOR (C. 1) SHECK (C. 1) COLOR (C.	VSCFXIII
1630 NCI	17	WECESS:
	C SCAN TAIL INDER	VISCERS
		VISCESES
ISN 0292	DO 22 JEI .WX	VISCE324
	IF (xout(s)-LT-0-90) GD TD 22	VISCE325
	#F(WHCU(K.J).GT.WBCU(K.J-1)) GO TO 22	VISCF326
	JF(JoEQoNX) GO TO 22	VISCE328
ISN 0299	WBCU(K.J) = WBCU(K.J-1)+(XMJ(J)-XMJ(J-1))/(XMJ(J+1)-XMJ(J-1))*	VISCF330
	I (WRCU(K, J+1) - WRCU(K, J-1))	VISCESSI
		VISCF333
	22 CONT INVE	VISCE334
ISN 0303	JF(KSWICH-EQ-1)GU TU 200	VSCF XI 17
		VSC-XIIB
	SCHOOL STATE OF THE STATE OF TH	VSCF XI 19
15W 0305	XX. 1= 1000 DE	WELE WISE
	TECKUT(J)-11-0-90)50 TO 8001	VSCFX122
	JF(WBCL(K.J).6T-WBCL(K.J-1))60 TO 8001	VSCFX123
	JF(J-EQ-NX) GO TO ROO1	VSCFX124
	WBCL (K.J) = WBCL (K.J-1)+(XOUT(J) -XOUT(J-1))/(XOUT(J+1)-XOUT(J-1))+	VSCFX125
	1fWBCL(K,J+1)-WBCL(K,J-1))	VSCFX126
ISN 0313	IF(YAW)WBCL(K+1,J)=WBCL(K,J)	VSCFX127
ISN 0315	8001 CDMT INUE	VSCFX128
		VISCE338
1SN 0316	SEPL2(K)=SEPL(K)	VSCF X129
		VISCESSO
ISN 0317	200 CONTINUE	VISCE340
		VISCESAI
	C SWEEP ACKOSS SPAN FOR STRIP B. L. CALC IS COMPLETED	VISCE342
	C NOAC CALCIE ATTON TO MADE HEDE	VISCESAS
		VISCESAR
ISN 0318	JE(YAW)GO TO BRIO	SKNF 1X 2
	1007 167 107	
	UU 12 K=K 7X oK BHL	VSCF X5 7

VSCFX132 VSCFX133	VSCF X134	VSCFX136	VSCF X137	VSCFXING	VSCF X139	VSCFXIAI	VSCF X142	VSCF X143	VSCF X1 &4	VSCF X145	VSCFXIA6	VSCFX5 9	VSCFXIBE	VSCFX150	VSCFX510	VSCFX152	VSCFX153	VSCF X154	VSCF X155	VSCFXISA	VSCEVISA	VISCESAG	SKNF IX 3	VISCE347	VISCERAGO	VSCF X223	VSCF X224	SKNF IX 4	VSCF X226	SKNFTX 5	STRVSS	STRVS227	SKNF IX 6	VISCESS	VISCESSO NOSS SPAN VISCESSO	VSCF X150	VISCE362			VSCFX TO	041475
		•									SMTH(BCU(K7X), KSP.0.ETA(K7X))																CALL SIMP (CFTU . ETAK2 (KTX) . SCFT2 (KTX) . KTIPIN. 1ERT)		CALL SIMP (CFTL, ETAK2 (K7X), SCFB2 (K7X), KTIPIN, 1ERB)					C.CFTU,CFTL	THE DUT DRAG ESTIMATE SONIC AND SHOCK LOCATIONS ACROSS SPAN	TO 1002			RITE(6,217) K, CFFKU(K), CFFKL(K), MACHUP(K), SONPU(K), SHKPU(K),	) SHKPB(K)	
	DO 13 JENXX NX	Lat +1	13 CONTINUE	12 CONTINAE	00 14 Jel 55	BCU(K)=WBCU1(K.J)	16 CONTINUE	×	KSP=K8BL-K7X+1	DO 17 NET OK 25MTH	17 CALL SMTH(BCU(K7X)	DO 18 K=K7X KBBL		14 CONTINUE	DO 40 K=K7X .K88L	NX=JTE(K)-JLE(K)+1	NXX=NX-5	The second secon	DO 41 L=NXX •NX		41 MEM41			IF (YAW) GO TO 190	SCFH(KTIP)=0.0	KTIP IN-K8X-K7X	CALL SIMP(CFTU,ETA)	CFTU=CFTU/SREF	CALL SIMP (CFTL, ETA)	CFTL=CFTL/SREF	190 CETU=SCET(K7X)	800	195 CFVISC=CFTU+CFTL	WRITE(6,215) CFVISC,CFTU,CFTL	C WRITE OUT DRAG ESTI	IFILWRITE .NE . 0) GD TO 1002	WRITE(6,224)	•	77 WRITE(6.217) K,CFF	-	1002 CUNITING

LEVEL	2.2	(SEPT 76)	VISCFL 05/360 FORTRAN H EXTENDED	DATE 77-295/15-39-56	4
ISN	1 0374	8	3 8100 K=K7X,K8FL	VSCF X512	
ISN	_	2		VSCF X163	
ISN	_	2	9-12-13	VSCF X164	
ISN		2		VSCFX165	
ISN		8	200 8 101 - 1 x x x x x x x x x x x x x x x x x	VSCF X166	
ISN		FIRST STATE	SCU1(K.L)=WSCL(K.J)	VSCFX167	
ISN				VSCFXIAB	
150		2 1018		VSCFX169	
100				VSCFXITO	
			W 1102 FELS	VSCFXI71	
15.				VSCFX513	
35		3		VSCF X173	
TAN		A103 C		VSCFX174	
TSN			MO 8104 N21.K2SMTH	VSCFX175	
ISN		8104 C	CALL SATHIBOUGHTY) KSP.0.ETAIK 7X1)	VSCF X176	
ISN				VSCFX514	
ISN			BC()1(K,J)=BCU(K)	VSCF X178	
ISN		8105 C		VSCF X179	
ISN			CONTINUE	VSCFXIRO	
ISN			DO 8106 K#X7X•K8BL	VSCFX515	
ISN		2	NX=JFE(K)-J-E(K)+1	VSCF X182	
ISN		2	NXX INX	VSCF X183	
ISM	-7	•		VSCFX816	
ISN		2	DO 8500 1 24XX-NX	VSCEXIRA	
100				VCCEXIBE	
ISN		8500 16		VSCEXIBE	
Ten				VSCE WIRT	
150				VSCENIAR	
1				VSCENIES	
			CANE DESTROYAL OF SELECTED STATIONS FOR CONDESSEDENT MISTORY	WISCERA,	
		ave o	DELIASIAN AL SELECTED STATIONS FOR CONTENSENCE. 1131ON	100-1001	
				VISCESSE	
ISI		5 7		VISCESSE	
		5 7		VISCESTO	
20	040	5 8	DELUKZ(IVITER)=UXLSIU(RU.JI)	VISCESTI	
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		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DOT SCHOOL LUCUS ACRUSS SPAN	CENTRALEGIE	
ISN	10406			STRV537	
ISN			IFLYAW) KRBL=K7X	STRVSZE	
		U		STRV S243	
		C PLANFORM	DRM TREATMENT FOR BAVITZ ROUTINE - SPANNISE SMOOTHING	STRVS244	
		·		STPVS245	
ISN	1 0409	8	DO 650 K#K7X,K8BL	STPVS246	
ISN	0410		JF(SEPU(K).GT.1.0)SEPU(K)=1.0	VSCF X228	
ISN	1 04 12	N	SEPUI(K)=SEPU(K)	VSCF Y229	
ISN	1 0413	×	XSEPU(IVITER.K)=SEPU(K)	RDSLP 1	
ISN	1 0414	-	IF (SEPU(K).GT.EXTNDUJGO TO 649	VSCF X2.30	
ISN	1 04 16	1997	SEPU(K)=SEPU(K)05	STRVS24e	
ISN			SEPURIK)=SEPUKK)	VSCF 7231	
ISN	1 04 18	650 C	CONTINUE	STRVS249	
ISA		2	K2SMTH=3	STRV5256	

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STRVS256
          SKNF TX 8
                    STRVS257
                                          SKNF IX 9
                                                     STRV5259
                                                                VSCF X232
                                                                             VSCF X233
                                                                                                   VSCF XASO
                                                                                                             VSCF X234
                                                                                                                          VSCF X235
                                                                                                                                                            VSCF X193
                                                                                                                                                                       BOSLP 2
                                                                                                                                                                                 VSCF X194
                                                                                                                                                                                            VSCF X195
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                                                                                                                                                                                                                                                                                                                                                                                STP V 5265
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                                                                                                                                                                                                                                                                                                                                                                                                                 STPVS270
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VSCF X210
                                STRVS258
                                                                                        STRV 5261
                                                                                                                                    VSCF X190
                                                                                                                                                VSCF X517
                                                                                                                                                                                                                                         VSCF X198
                                                                                                                                                                                                                                                                SKNF IXI
                                                                                                                                                                                                                                                                                                                                                                    STRV S264
                                                                                                                                                                                                                                                                                                                                                                                            STRV 5266
                                                                                                                                                                                                                                                                                                                                                                                                                                       STRVS272
                                                                                                                                                                                                                                                                                                                                                                                                                                                 VSCF X207
                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRVS273
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRVS276
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRV 5280
                                                                                                                                                                                                                                                                                                                                                                                                                            STPVS271
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRVS283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STPVS281
                                                                 656 FURMATI///8x,2H K,10X,4H ETA,6X,11H LIPPEP SEP.,5X,11H LOWER SEP.,
                                                                                                                                                                                                                                                                                    8006 FORMATI//8X.2H K.10X.4H ETA.6X.11H LOWER SEP..5X.11HSFPL(K)-MOD.
                                                                                                            WRITE(6,332)K,ETA(K) SEPUI(K), SEPL(K), SEPU2(K), SEPU(K)
                                                                                                                                                                                                                                                                                                                     WRITE (6,8008)K,ETA(K), SEPUI(K), SEPUZ(K), SEPL (K)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FORMAT(1H1, 28H MODIFIED WBQU AT SEPARATION)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CALL OF BAVITZ SEPON TREATMENT SUBROUTINE
                                                                                                                                                                                                                                                    CALL SHTH(SEPL2(K7X).1.0.ETA(K7X))
                                                                            15X.1 1HSEPU(K) -MOD. 5X.0HSEPU-SMTH)
                                CALL SWTH(SEPUIKTX), 1,0, ETA(KTX))
                                                                                                                                                                               IF (SEPL (K). GT.EXTNDL)GO TO BOOS
                                                                                                                                                                                                                                                                                                                                                                                                                IF (SEPLIK). GT. SEPMINJGD TO 404
                                                                                                  1F(SEPL(K).GT.1.0)SEPL(K)=1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IF (SEPMIN.GT..96) GD TO 405
                                                                                                                                    IF (KSWICH-EQ.1)GD TO 8004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IFILWRITE .NE . 01GO TO 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                 IF (KSWICH-EO-0)GO TO 405
                                                                                                                                                                      XSEPL( IVITEP .K) = SEPL (K)
                                                                                                                                                                                            SEPL (K)=SEPL (K)-0.05
                                                                                                                          FORMAT(110.5F15.4)
                                                                                                                                               DO 8002 K=K7X,K88L
                                                                                                                                                                                                                                      DO 8005 N=1 . K25MTH
                                                                                                                                                                                                                                                                                                           DD 8007 K#K7X,K88L
                                                                                                                                                                                                                                                                                                                                  FUPMAT(110.4F15.4)
                                                                                       DO 653 K=K7X.KBBL
                                                                                                                                                                                                                                                                                                                                                                    LOCATE MINIMUM SEPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NX= JTE (K)-JLE (K)+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NO 302 K=KTX+KBBL
         IF (YAW)GD TO 8800
                     DO 651 N=1.K2SMTH
                                                                                                                                                                                                                             IF(VAV)GO TO 8801
                                                                                                                                                                                                                                                                                                                                                                                                     DO 404 K=K7X, KBBL
                                                                                                                                                           SEPUT(K)=SEPL(K)
                                                                                                                                                                                                       SEPUZ(K)=SEPL(K)
                                                                                                                                                                                                                                                                                                15X, 9HSEPL-SMTH)
                                                                                                                                                                                                                                                                                                                                                                                                                            SEPMINESEPL (K)
                                                                                                                                                                                                                                                                          MRITE(6,8006)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WRITE(6,604)
                                                      WRITE(6,656)
I=KBBL_KTX+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CALL DAVITZ
                                                                                                                                                                                                                                                                                                                                                                                          SEPMINE1 .0
                                          CONT INCE
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ISN	0584	DO 1011 J=JXLE,JXTE	VSCF X249
Z	0585		VSCF X250
NS	0586	1011 XQUT (4,3) = X1 (4)	VSCF X251
NS	0587	WP1TE(6.1008)K	VSCF X252
20	8890	THE STATE OF STATE OF STATE OF STATE STATE STATE STATE STATE OF STATE ST	Verexons
2	9960		COULT NEW
		114//3X,1HJ*ZX,3HX/C,3X,5HD-TOP,6X,7HACT-SLP,4X,5HD-HOT,6X,7HACT-SLVSCFX254	VSCF X254
		2P.5X.4HWBCU.7X.4HWBCL./)	VSCF X255
14 2	00 90	×4. 1-1 0001 07	VECENORA
	4000	Val. 1-0 April 201	ASCL VESO
SE	0690	WRITE(6.1010) J. XMJT(J) . DXLSTU(K.J) . DMDSTU(K.J) . DXLSTL(K.J) . DDDSTL(VSCF X257	VSCF X257
		1K.J.) *WBCU(K.J.) *WBCL(K.J.)	VSCF X258
2	1050	1010 FCDMAT(13-FK-3-KF11-A)	VSCENDED
			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
20	266		VSCF ACOU
ISN	6893	1007 CONTINUE	VSCF X261
ISN	9650	1006 CONTINUE	VSCF X262
		U	VISCF392
		C RESET B.C. as	VISCF393
			VISCESOA
20	AGAG	DO A K-KTX-KRRI	VSCENSEO
	200		2000000
20	000	;	SIKASSES
N	1660	DO 4 J=1.NX	VISCE396
SN	9650	WBCU(K,J)=WBCUOR(K,J)	VISCE397
ISN	9650	4 WBCL (K, J) = WBCLOR (K, J)	VISCF398
Z	0090	ISTOP= TRUE	VISCE399
			200000
M	-		VISCT*00
124	1000	N. C.	VISC PAUL
			VISCEADE
		C FORMATS	VISCFA03
		C The Control of the	VISCFADA
ISN	06 02	99 FORMAT(1H1//10X,24HVISCOUS FLOW CALCULATION//	VISCHINT
			VISCEIXB
Non	2000	TO ENDMATERING TANTOTAL CHANGE OF DOES SIDE OF ITTONY	VISCETVO
	300	יייייייייייייייייייייייייייייייייייייי	ATOCIA
		1 OHIOF ISSELVENDATION ISSELVENTA	VISCEILO
		2 37HIN TERMS OF THE CONVERGENCE CRITERION/10X, 2E20.5/)	VISCFIII
ISN	9090	201 FORMAT(1H1.10X.26HNEW DISPLACEMENT THICKNESS /10X.10HAT STATION	VSCF X243
		1 14 / 23x - 1 H 1 - 2 X - 3 H X / C - 3 X - 5 H D - T I D - 6 X - 6 H C H A N G F - 4 X -	VSCEX 13
		The state of the s	
		A HING-STRANG -ST. P. 4X. STILL -SKI SOX. STICHANG -SX.	VISCELLA
		3 THIND-SLP.4X. THACT-SLP.5X.4HWBCU.7X.4HWBCL/)	VISCFIIS
ISN	9090	204 FDRMAT( 16.6E20.5)	VISCF417
ISN	9090	206 FORMAT(1H1, 5X, 33H1NVISCID SOLUTION AT SPAN STATION .14 .5H YZS	VISCEISE
		2 FR - 4)	VICCETOT
:	-000	***************************************	
SN	1000		VISCHAZI
ISN	9090	208 FORMAT(/10x,43HLIFT FROM INTEGRATION OF DELTA PH) AT TE 1S,E14,5/)VISCFI18	VISCF118
ISN	6090	209 FURMAT( /5X, 1HJ, 12X, 3HX/C, 1TX, 3HCPU, 18X, 3HCPL, 18X, 3HEMU, 18X, 3HEML/)VISCFII9	IVISCF119
ISN	06 10	210 FORMAT(1H1, 10x, 40HVISCOUS-INVISCID ITERATION HAS CONVERGED///)	VSCF X244
2	1190		VACETOAS
			2000
-			ASCE ACRO
122	2190		VISCEIZI
ISN	0613	AAT ( AAX & 4 HSPAN & 4X & 13 HMAX CP CHANGE . 9 X . 9 HNEW CP AT . 10 X . 9 HOLD	CPVISCE122
		1 AT .6X.BHLOCATION.8X.7HAVERAGE /2X.7HSTATION.23X.	STRVS325
		211HMAX CHANGES.9X.10HMAX CHANGE.4X.11HOF MAX CHGE.5X.6HCHANGE/)	STRVS326
ISN	0614	215 FORMAT(1H1, 5X, 33HTOTAL VISCOUS DRAG COFFICIENT 15 -F14 -3 -5X.	VSCF X247
		1 TOUTHD VIECUIS DOAC IS ELA. 3 . KY . SOURHTTON VIECUIS DOAC IS	
		I ITATION VISCUUS URAG 13+E14-51-504-64 FIBOTION VISCUUS URAG 134	VISCEIZE
		1 E14 • 3 / )	VISCF128

LEWEL 202 (SEP) 76)	I 76) VISCFL		05/360 FORTRAN H EXTENDED	DATE 77. 295/15.39.56	PAG
ISN 0615	FORM	NT (/10X . 13HLDWER SURFACE/)		VISCET29	
15N 0616		NT(3(16,2E14,3))		VSCFX 14	
15N 0617	FORM	NT (16,5X,F12,2,3X,2E20,5,18,5X,F12,2)	3.5X.F12.2)	VISCF433	
15N 0618	FORM	AZHCONVERGENCE ON C	ATI/10X . AZHCONVERGENCE ON CL. MOT USED FOR CL. LT .05 //		
	1 10X • 32H CL	1 10X.32H CL FOR THIS CP DISTRIBUTION IS .F10.37)	3UTION 15 .F10.3/)	VISCET31	
1SN 0619	224 FUPMAT (5X.1H)	K. BX. SHCFFKU. 10X. 5H	ATISX.1HK.8X.SHCFFKU.10X.SHCFFKL.6X.6HMACHUP.4X.	STRV 5328	
	1 SHSONPU. 6X .	SHSHKPU, TX , 6 HMACHDN	SHSONPU. 6x . 5HSHKPU. 7X . 6HMACHDN. 4X . 5HSONPL . 6X . 5HSHKPL )	VSCFX 15	
ISN 0620	226 FORMAT(2X,1H.	J.1X.4HCLGG.1X.4HIT	ITIZX.1HJ.1X.4HCLGG.1X.4HITER.3X.5HEPS1X.5X,5HEPS2X,5X.	VISCF133	
	1 SHCPUKI.SK.	SHCPLK 1.5X . SHCPUK 2.	1 SHCPURI - SK - SHCPLK 1-5X - SHCPUR 2 - SX - SHCPLK2 - 4X - 6HDELUK1 - 4X -	VISCFI34	
	2 SHDELLKI.4X	2 SHDELLKI .4 X . SHDELIK 2 . 4 X . SHDELLK 2 /)	x2 //	VISCETES	
ISN 0621	310 FUPHAT(13,F6	NT(13.F6.3.14.12F10.5)		VISCFA40	
				VISCFARI	
ISN 0622	GNB			VISCFAA2	

16

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 621. PROGRAM SIZE = 15048, SURPROGRAM NAME =VISCPL SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

12K BYTES OF CORE NOT USED

225

## RE OLE STED OPTIONS OPT(2) , NOMAP

	SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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		SOURCE EBODIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1)	ALC NOAN	SF TERM FLAG !!	
ISN	2000	SUBROUTINE VBRAD ( SBRA, VODEL, VO THET, CFV, CFZ, CP, 1, A, RE, HO, XLAMDA,	ADA. VRRAD	AD 2	
		1 KSEP, KVOMX,KVOL)		AD 3	
	U	•	VAPAD	AD 4	
	U	C BRADSHAWES COMPRESSIBLE 2-D TURBULENT B. L. PROGRAM	VBRAD	AD 5	
	v	•	VAPAD	AD 6	
	U	C MODIFIED TO SIMULATE 3-D BOUNDARY LAYERS	VBRAD	AD 7	
	U		VBRAD		
	U	C BY THE NASH-TSENG MODIFIED CHORD TECHNIQUE	VBRAD	An 9	
	U	U	VRRAD	AD 10	
	•	U	VRRAD	AD 14	
	0	U	VAPAD	AD 15	
	2	U	VBR	VBRAD 26	
ISNO	0003	COMMON / THRED / XLAM	100	COMP 1179	
	9000	1	NOO	COMP 1180	
	9000	SBPA(1)	•	COMP 1181	
		CFZ(1) , CP(1) , 1(15) ,	•	COMF 11R2	
		2 XLAMDA(1) , Z(1) , RD(1)	MOD	COMF 1183	
ISN 0	90 00	•	•	COMF 1184	
		1 AL(2.3) • W(50) • P(50) • RDU(50)	•	COMP 1185	
				COMF 1186	
ISNO	2000	. TFUT(50) . WFUT(50) .	TANAFU(50). COM	COMP 1187	
		TANBFU(50), V(50) , 161 .		COMF 1188	
		2 RK2 • RK3	COM	COMP 1189	
ISNO	8000	(-2.083*		VRPAD 25	
	6000	FN(Z)=2.*(ALDG(2./(1.+SORT(1.+Z)))+SORT(1.+Z)-1.)		VBPAD 26	
	00100	JTDFL=1 (13)	VARAD	AD 27	
	0011	SWPANGEA(20)	VAR		
	0012	JWR17= 1(15)	VRR	VARAD 29	
	Se villado	300 FORMAT (1215)	VBR	VBRAD 30	
			/) VIS	VISCEIBT	
	0015			VISCETAR	
		1 5X 1H4.8X 3HCFZ 8X 4HmEN/)		VISCEI39	
ISN 0	00 16	309 FORMAT(14.F10.57.3E11.44.3X.F5.3.E13.4.3X.F5.3.2F7.3.2F7.53.2F10.6.16)	100	VBRAD 34	
	2100	310 FORMAT(//5x.46HITERATION FOR STARTING COMDITIONS OF TURBULENT		VISCETAO	
		1 50H BOUNDARY LAYER NOT CONVERGING - CALCULATION STOPS /)		VISCFIAL	
ISN 0	00 18	311 FORMAT(1H1//12X,35H TURBULENT BOUNDARY LAYER SOLUTION //)	VIS	VISCEI 42	
		NCOUNT=0	VBRAD	AD 38	
ISN 0	0000	10=1	VARAD		
	0021	15=1(5)	VARAD	AD 40	
	U	u	VAP	VAPAD 41	
ISN 0		IF (ITDFL.Eg.0) SWPANG=0.0	VAPAD	AD .2	
ISNO	9024	JF(SWPANG.EQ.O.O) ITDFL=0	VBRAD	AD 43	
	00 26	JF(170FL.NE.0) GO TO 571	VARAD	AD 44	
ISN 0	00 28	DO 570 J=1.15	VARAD	AD 45	
ISN 0	90 29	570 XLAMDA(J)=1.0	VBRAD		
15N 0	0030	571 CONTINUE	VAPAD		
	1500	AMACH= A(18)	VAPAD		
	00 32	AMACN=COS (A (201)+AMACH	VARAD	AD 50	

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DATE 77.295/15.46.58
                                                                                                                 VBRAD 61
VBRAD 52
VBRAD 63
VBRAD 64
                   VBRAD 51
                                                                                                                                                                                                                                    VBRAD 72
VBRAD 73
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                                                         VBRAD 55
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                                                                                                                                                                  VBRAD 65
                                                                                                                                                                           VBRAD 66
                                                                                                                                                                                              WBRAD 68
                                                                                                                                                                                                                          VBRAD 71
                                                                                                                                                                                                                                                                 VBRAD 75
                                                                                                                                                                                                                                                                           VBRAD 76
                                                                                                                                                                                                                                                                                              WRRAD 78
                                                                                                                                                                                                                                                                                                                                    PBRAD 84
                                                                                                                                                                                                                                                                                                                                              VBRAD RS
                                                                                                                                                                                                                                                                                                                                                       VBRAD R6
                                                                                                                                                                                                                                                                                                                                                                 VBRAD 87
                                                                                                                                                                                                                                                                                                                                                                          MRRAD AR
                                                                                                                                                                                                                                                                                                                                                                                   WRAND 91
                                                                                                                                                                                                                                                                                                                                                                                              VERAD 92
                                                                                                                                                                                                                                                                                                                                                                                                               6
                                                                                                                                                                                                                                                                                                                                                                                                                                   VRPAD 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARAD 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WRRAD101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VBPADIO2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VBRADIOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VISCF145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARADIOS
                                                                                                                                                                                                                                                                                    WARAD 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VBRADIO7
                                             VBRAD
                                                                                    VBRAD
                                                                   VARAD
                                                                           WBPAD
                                                                                                                                                                                                                                                                                                                                                                                                                        VBRAD
                                                                                                                                                                                                                                                                                                       VRPAD
                                                                                                                                                                                                                  VBRAD
                                                                                                                                                                                                                                                                                                                PBRAD
                                                                                                                                                                                                                                                                                                                                                                                                       RPAD
                                                                                                                                                                                                                                                                                                                                                                                                               MARAD
                                                                                                                                                                                                                                                                                                                                                                                                                                             VAPAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERAD
                  FEMP= (1.+.5*(A(12)-1.)*AMACH**2)**(A(12)/(1.-A(12)))
05/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IF(ITDFL.NE.0) CALL WUSUB(RETHTZ.XLZ.XNUZ.XMNSD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IF(ITDFL.NE.0) CALL WUSUB(A(4).XLAM.XNU.XMNSQ)
                                                                                                                                                                                                                                                                                                                                                                                            VOLPDX=SLOPE(P.A(2),1(5),X)/ORDIN(P.A(2),X)
TETON=PSTAT##((A(12)-1.0)/A(12))
                                                       P(J)=(1.0+0.5#A(12)#CP(J)#AMACH##2)/POPINF
                                                                                                                                                                                                                                                                                                                                                      IF ( I TDFL . NE . 0 ) XLAM=CRD IN ( XLAMDA . A ( 2 ) . X )
                                                                                                                                                                                                                                                                                                                                                                                                               XMNSO=2.0 /(A(12)-1.0)*(1.0 /TETON-1.0)
                            TOT INF=1.0+ (A(12)-1.0) /2.0+AMACN++2
                                     POP INF=TO TINF ** (A(121/(A(12)-1.0))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CFFCTR=XMNSQ/AMACN##2#PSTAT#P0PINF
                                                                                                                                                                                                                                                                                                                                             P.A(2).X)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RK4=(1.48K5)/(1.4RK5/A(13))
                                                                                                                            BEGINING OF SOLUTION LOOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WEUE = TAN(ACOS(XLAM))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALZ = SIN(ACOS(XLAM))
                                                                                                                                                                                                                                                                                             AY=A(13)*(A(12)-1.)
                                                                                                                                                                                                                                                                                                                          1F(X-A(3)) 1.207.1
                                                                                                                                                                                                                                                                                                       XCMAX=A(2)*(15-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RETHTZ=RETHT #WEUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                     RK5=AY*XMNSQ/2.0
                                                                                                                                                                                                                                                                                                                                                                                   A(8)=ABOP 16/XLAM
                                                                                                                                                                                                                                                                                                                                                                                                                        PK2=TETON*X MNSO
                                                                                                                                                                                                                                                                                                                                                                                                                                           RK3=AY*XMNSQ/RK
                                               NO 3015 J=1.15
VBRAD
                                                                                                                                                                                                                                   RIS=FLOAT(15)
RI6=FLOAT(16)
                                                                                                                                                                                                                                                                                                                                                                                                                                  PK=SORT(RK2)
                                                                                                                                                                                                                                                                                                                                              PSTAT=ORD IN(
                                                                                                                                                                 ABOR 16=A(8)
                                                                            LIMIT=I(4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DETHT=A(4)
                                                                                                                                                                                                                          111=1(11)
                                                                                                         KVO= KVOL
                                                                                                                                             X AM=1.0
                                                                                                                                                                                                                                                                                                                                   CONTINUE
                                                                                                                                                        O-1=Z0NA
                                                                                                                                                                           CONT INCE
                                                                                                                                                                                                                                                        161=16+1
                                                                                                                                                                                                                                                                  162=16+2
                                                                                                                                                                                                                                                                                                                LAST 1=15
                                                                                                                                                                                                                                                                                                                                                                          WELVE =0.0
                                                                                                                                                                                                                                                                           164=16+4
                                                                                               KSEP= 1
                                                                                                                                                                                                                                                                                                                                                                 M.Z=0.0
                                                                                                                                                                                      16=1(6)
                                                                                                                                                                                                        18=1(8)
                                                                                                                                                                                              17=1(7)
                                                                                                                                                                                                                  (6) 1 8
                                                                  K=A(3)
                                                                                      EP=1
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                                                                                                                                                                                                                                                                                                                                   207
                                                          3015
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LEVEL 2.2 (SEPT 76)
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LEVEL	2.2	(SEPT 76)	VBRAD 05/360 FORTRAN H EXTENDED	DATE 77.205/15.46.58
ISN			AAAR=RE*XNUZ*WEUE	VBRADIOS
ISN	1800		FF(ITDFL.NE.0) A(4)=XNUFA(4)	VBR AD109
ISN			JF(111.NE.1) GD TO 220	VRRADIII
		u	The representative and the second of the sec	VARADI12
		u	CARD FOR TRANSFER INTO OLD LOOP	VBRADI13
		u		VAPAD114
		u	JF(1-12-LT-0) GO TO 360	VBRAD115
		u		VAPADITÉ
		***		VBRAD117
		u		VBRADIA
		U	ORIG. BRAD. LODP-A(S) DEFINED DIFFERENTLY THAN PRESENT	VRP A 0169
	-			VBRADITO
ISN		360	-	VBRADITI
ISN			IF CHTR MS -GT -2-1 ) HTRANS=2-1	STRVS337
ISN			A(5)=0.123/10.0++(0.678+HTRANS)/A(4)++0.268	VBRADITS
ISN			A(5)=0-5*A(5)	VSCF X263
ISN			G=SORT(A(5)*(1.+RK5)1/A(9)	VBRAD176
ISN			1=0.1	VBRADIT
ISN			TTI= 10-15*RK5/16.	VBRAD178
ISN		361		VBRADI79
ISN	0100		B= 1 G#(2.+ALOG(A(9)*G#RE/T))	VBRADIRO
ISN	1010		TI=(G+.5+8-2.+G++2-0.375+8+42-1.59+8+6)/(1.+(49297.+6)/RE)	VBRADIFI
ISN	0102		HI= (G+.5+8)/TI+40./RE	VRR AD182
ISN			TTI= 10-RK5#(50#H1-10)#(H1-10)/(30#H1-10)/(20#H1-10)	VBRA DIB 3
ISN			IF (ABS(10-T1/T)-LE-00-005) GD TD 211	VBRADIBA
ISN			7= 77	VBRADIRS
ISN	1010		GO TO 361	VBRADIRE
		U		VBRAD187
		v	END OF ORIG. RRAD. LOOP	VRRA D188
		U		VBRADIES
ISN	9010	211	1 A(5)= (6#A(9))##2/(1.+RK5)	VBP A D1 90
ISN	0100		TAU0= A(5)*PK2*(1.+PK5)	VRPADIOI
Z			SECTION ON DESTRUCTION OF THE SECTION OF THE SECTIO	VBD A DT G2
NV			SECTION OF	WEDA DIOS
100		34.8	213 11 16	2004000
200		3	200	MODA DESC
101				CALANDA
ISN			U(3) = 6*ALU6 (*) +1 5 = 8 = (1 + + CUS (3 - 14   5 9 = * * * * * * * * * * * * * * * * * *	VSPADI96
ISN			TAU (J)=(G/Y+1=5708H#SIN(3=14159#Y) ##24(A(9)#Y)##?	VERADIOT
ISN			IF (V.LE2) TAU(J)=TAM(J)*(13.7****1.6)	VBRADIOS
ISN			IF(Y-612) TAU(J)=TAU(J)*1.58*EXP(-3.0*Y)	VAPA 01999
ISN			W(J)=U(J)*RK/(RK4/AV5+U(J)**?*RK2)	VBRAD200
ISN			TAU(J)=TAU(J)/(1.+RK5)	VERADEOI
ISN	0124			VBPADZ02
ISN		212	2 ROUZ(J)=ROU(J)*RK*U(J)	VBRA DP03
		***		VBRAD204
		***	A(1) A(4) AND A(6) ARE REASSIGNED BELOW	VBRAD205
		***		VRRAD206
ISN			A(4)=A(4)/A(1)/PK#(1+PK5/A(13))##(1+/(A(12)-1+)-A(14))	VBRADZ07
ISN			RI 16=1./R16	VBRADZOB
ISN			D1=1(5./6.*ROU(1)/P16+SIMPSN(ROU.1.16.R116)) /ROU(16)	VBRAD200
ISN			TD=101-(5./7.*R0U2(1)/R16+S1MPSN(RQU2.1,16.R116))/RQU2(16)	VBRADETO
ISN			IF(RK,GT06) GO TO 1212	VBRA DP 11
ISN			<b>7-11</b>	VBRAD212

CONTINUE  A(1)=A(1)TD /R16  A(6)=A(1)TD /R16  TAU(1)==250=L0AT(1))*(A(5)+.50*UDPDX  TAU(1)==250*L0AT(1))*(A(2))  FORMAT(11002 3100)T  FORMAT(11002 3100)T  END OF OPTIONAL SYNTHETIC STARTNG PROFILES DELTA=F6.4)  END OF OPTIONAL SYNTHETIC PROFILES . REPLACE THIS BLOCK BY  CAND OF OPTIONAL SYNTHETIC PROFILES . REPLACE THIS BLOCK BY  CAND 1011 CONTINUE. IF NOT REQUIRED. OTHERWISE PUT 1(2)=  GO TO 220  GO TO 220  MCJ ==RC + 1.66  MCJ ==RC + 1.
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EVEL	2.2	(SEPT 76)	3	VBRAD DS/360 FORTRAN H EXTENDED	CTENDED	DATE 77.295/15.46.58
ISN	0205		9	GO TD 1034		VBRAD318
ISN	9020	103	-	MPD2=.54CFR+DELTA24(WDLPDX#(H1+2RMA2)/(A(12)4RMA2)-DIV)	1214RMA21-DIV)	VBRAD319
ISN	0207		THE	THETA=THETA+.5*(ORD1+ORD2) *XSTEP		VBRAD320
ISN	9020		980	ORD 1=0P02		VBRAD321
ISN	0500	103	•	CONTINE		VBRA D322
ISN	02 10		RAPA	RMAX=0.		VBRADBES
ISN	0211		IF	JF(TAMB(1))27,27,26		VBPAD324
ISN	0212	~	1=01 9	FIGURE CONTRACTOR CONTRACTOR SERVICES SERVICES CONTRACTOR CONTRACT		VRRAD325
ISN	0213		8	GO TO 28		VBRAD326
		* 0	*			VBRAD327
		U	8	COURANT FRIEDRICHS LEWY XSTEP CRITERION		VBPA 0328
		** 0	*			VBRA1329
ISN	0214	~	00 4	1 320 JE1.16		VBRADSSO
ISN	0215		IFC	1F(RMAX-TANA(J))29,29,30		VBPAD331
ISN	0216	2	29 RMA	RMAX=TANA(J)		VBRAD332
ISN	0217		8	GO TO 320		VBRAD333
ISN	0218	•	30 IF	JF(RMAX+TANB(J))31,31,320		VBRAD334
ISN	0219		SI RMA	PMAX=-TANB(J)		VBRA 0335
ISN	0220	32	0	CONTINUE		VBRA 0336
ISN	0221		2	MSTEP=A(11)*A(1)/RMAX		VBRA 0337
ISN	0222			JF(X-XSTEP-(R15-1.)*A(2))1035,1035,104		VRRAD339
ISN	0223	103	5	H=-XSTEP+TANB(1)/A(1)		VBPA 0340
ISN	0224	103	9	TORO=TAU(1)		VBRA 0341
ISN	0225			TOR=TAU(2)*H+TAU(1)*(1H)		VBPA 0342
ISN	0226		3	UL=U(2)*H+U(1)*(1.+H)		VBRAD343
ISN	0227		TIN	FINT=FOR		VBRAD344
ISN	0228		CIN	UINT=UL		VBRAD345
ISN	0229		ME	WENT2)#14+#(1)#(1+1)		VBRAD346
			*			VBPAR347
		, .		ROBBITARY CONDITION FOR SON ID SIMPACE		VBRAD348
		:				VAPANTA
	02.00			**************************************		VRDANASO
200	0530	;	CVY	AASTEP-AASTEP		VODANSEI
2	1020	•	2000	SELITOR ME OF VIANEDOUN VIANDA -4/21-XXCTED	四十年五月日本十四日日十二日 日本十五日日	VRDAORES
200	2020			A CONTRACTOR OF ALTHOUGH ALTHOUGH AND		VRPANZEZ
101	200			STANKE SECTION AND AND AND AND AND AND AND AND AND AN		WOD A DZEA
20	0530		1	D=A2+(10/A(12)-10)		VON A STATE OF
NS.	0230		5	C=8/(A(13)*(B-1.)+1.)		VBPA 1055
SN	0237		V=O	D=ALDG(A(1)*A(4)*AZ*C**(1.+A(14)))+A(10)		VBRADSS6
ISN	0236		EEZ	E=2./A(13)/(A(12)-1.)/C		VBRADSSY
N	0239		3	UFUT(1)=U(1)+BETA*XSTEP		VBPADSS8
ISN	0540		2	IFUT(1)≈TAU(1)		STRVSSSB
ISN	0241		3	IOUTER=0		VBRA 0359
ISM	0242		7	PNNER=0		VBRAD360
ISN	0243	24	0			VBRA0361
ISN	0244		IFC	IF(IOUTEP.GT.25) WRITE(IWRIT.401) X.IOUTER.INNFR.TEST1.TEST2.TEST3VBRAD362	INNER . TESTI . TESTE.	TEST 3VBRA 0362
			1 .1	,TEST4		VBRA D363
ISN	0246		IF	IF(10UTER.GT.75) GO TO 1045		VBRADE64
ISN	0248		FEW	F=#W&TOR/A(8)		VBPA 0365
3	0249	•	=	FORMAT( AX. 10HOUTER LOOP .F10.4 .216.4E15.4)		VISCETSI
ISN	0250			G=(A(15)+.5)*F-SQRT(((A(15)+.5)*F)**2+2.*TOR/A(8))	2/A(8))	VBRAD367
ISN	0251		COR	MPDX2=X+.54XSTEP		VBPAD368
ISN	0252		3	OLPOX=SLOPE (P.A(2),1(5) .XPOX2 )/ORDIN(P.A(2),XPOX2)	.xPDX2)	VBRAD369
ISN	0253		1	- AV/A(12)*PLPDX		VBRADS70

The second second		4 •			•	. 0		0	0		0.			2	9		•	•	•		0			2	•		80	0	0		2	3		10	•	_	60	0.	0		0.				90		•	•	0		C)	3
VRDACATE	VAPANATO	- CONTRACTOR	VARAIRE	VRPADS75	VAPACIATE	VISCEISS	VBR A D378	VBRADSTO	VBRAD380	VBRA DOR	VBRADBB2	VBRA DG63	VISCFISS	VBRAD385	VBPA D366	VBRADSET	AVBRADS	VRRA 0389	VBRAD390	VBP A D391	VRPA 0392	VBRADS	· VBRAD39	VBRA 0395	VERAD39	VBRA 0397	VRPA 5398	VBRAD399	VERADADO	VBPADADI	VAPADARZ	VBRA DA03	VBRAD404	VBRADADS	VBRADADE	VBRAD407	VBRADADB	VRRA DADO	VBRA DA 10	VRPADATE	VBRAD412	VBRA DA 13	VBRA DA 14	VBRADA15	VBRADA16	VARADATT	VBRADA18	VARADA19	VBRAD420	VBRA DA21	VBRA DA22	VBPA DA23
CHARGE	104 1 NAMED TANED 1		INCLUDE TO THE THREE THR	JF ( INNER CT - 100) GO TO 1044	PTDT = SORT (TAUG)	402 FORMATCAS. 10HINNER FOOD F10.4 .216.4E15.4)		1(11./A(12))/W#+A(8)*SORT(TOR)*G/(UL*A(9)*(1.+.5*H)*A(1)))/	265%	AAT=ALFHA*A(1)/TAUO	JF (AAT-LE 1.0) WRITE (IWRIT-404) AAT-ALPHA-A (1) TAUD . I NNER . TOUTER	IF(AAT-LE1-0) GO TO 104	404 FDRHAT (/24H AAT LT -1.LOOP VALS ARE .4E12.4.216)	F1=UFUT(1)-R00T/A(9)*(ALOG(R00T)+0+FN		F2=TAU0+ALPHARA(1)+F48F5	F3=DLPDXXCVA(12)+-34 (DFUT(1)++2-U(1)++2)+(2-+5+1-)/3-/XSTEP-ALPHAVBRAD388	F6=1 a/(1 a+50RT(1 a+ALPHA+A(1)/TAU0))	DF1DTW=54UFUT(1) /TAU0-(-5-ALPHA*A(1) /TAU0+F6)/RODT/A(9)	DF10A=-A(1)/A(9)/RODT#F6	F7=2-eUFUT(1)/(E-UFUT(1)*+2)	DF2DU=F5+(TOR/(5+6)+F4+F7)	DF30UE-24F54F74(UFUT(1)4+2-U(1)4+2)/XSTEP+ 2-4UFUT(1)/XSTEP+(2-4F54-VBRAD394		DU= (DF1DTW* (F2+A(1)*F3)-F1-DF1DA#F3)/(1OF1DTW*(DF2DU+A(1)*DF3DU)VBRAD396	1+0F1DA+0F3DU)	DA=F3+DF3DU+DU	DTW=-F2-DF2DU4DU-A(1)*DA	UPUT ELD =UPUT (1) +OU	TAUG =TAUG +D TW	JF(TAU0)9411,9411,9412	9411 10=1	GO TO 28	9412 ALPHA=ALPHA+DA	A162=2.*A(16)	TEST1=DU/UFUT(1)	TEST 2=DTW / AUO	TEST 3=DA/ALPHA	TEST4=1.0-TFUTP/TOR0	-	1042 IF (ABS(DTW/TAU0)-A(16))1043,1043,1041	1043 IF(ABS(DA/ALPHA)-A162) 1044,1044,1041	1044 WFUT(1)=F7	TFUTP=TFUT(1)	TFUT(1)=(TAU0+ALPHA *A(1))/(1.+.5+UFUT(1)*#FUT(1))	IF (ABS(1TFUT(1)/TDR0)-2.4A(16))1045,1046,1046	1046 HE-XSTEP/A(1)*(((A(15)5)*WFUT(1)*TFUT(1)-SORT(((A(15)+.5)*	IMFUT(1)*TFUT(1))*#2+2**A(8)*TFUT(1))/UFUT(1))	UINT=U(2)*H+U(1)*(1.+1)	TINT=TAU(2)*H+TAU(1)*(1.0-H)	UL=.54(UINT+UFUT(1))	TOR = .54(TINT+TFUT(1))
A250		2500	9630	0258	0560	0261	0262			0263	0264	0200	0268	6920	0270	0271	0272	0273	0274	0275	0276	0277	0278		0279		0280	0281	0282	0283	0284	0285	0286	0287	0286	0289	0530	1620	0292	0293	0294	9620	9620	1620	9670	0500	0300		0301	0302	0303	0304
25			101	ISN	N	Z	ISN			ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN		ISN		ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	1	ISN	ISN	ISN	ISN

VBRAD525 VBRAD526	VBRAD527	VBRA 0528	VBRAD529	VBPA 0530	VBRADESI	VBRA 0532	VBRADESS	VBRA D534	VBRADERS	VBRA 0536	VRRA 0537	VBRAD538	VBPA (539	VBRAD540	VBRADS41	VBRA 0542	VBRADSA3	VBRADS44	VBRAT545	VBRAD546	VBRADS&7	VARADSAR	VBRADS49	VBPA 0550	VBRAD551	VBRA 0552	V8PA 1553	WOOD A PAGE	VARATESA	VBRADSST	VBRADSSE	VBPA 0559	VBRADS60	VBRADS61	VBRADS62	VBRADSA3	WORKER	NAPA CANA	11 MEADS67	VARA (568	VBRAD569	VBPAD570	VARAISTI	VBRADGT2	VBPADS73	VARAINTA	VBRADSTS	VBP A DS76
	CALL SOLVEB (UFUT(K), TFUT(K), DET.AL.)	1F(DET.EQ.0.) GO TO 60	62 JF((TFUT(K)/RK2).LT.1.0E-10)TFUT(K)=RK2*1.E-10	IF(UFUT(K), GT.RK)UFUT(K)=RK	IF (Ket.E.(16-5)) GO TO 63	IF(IFUT(K).61.TFUT(K-1))TFUT(K)=RK2*1.0E-10	IF (UFUT(K) -LT - UFUT (K-1)) UFUT (K)=RK	63 CONTINUE	WFUT(K) = UFUT(K/A/AY54UFUT(K) ##2)	68 IF(1UFUT(K)/RK-1.0E-3)69.70.70	69 JF(TFUT(K)/RK**2-1.0E-6)71.70.70	70 JF(K-1(6))72,72,71	72 K=K+1	60 TO 74	60 1(6)=K-1	60 70 75	71 1(6)#	75 16=1(6)	D1V=0.	IF(119 )176.76.110	110 DIV=1./(X+XSTEP-ORDIN(Z.A(2).XFUT))	IF(119 )-1)76.76.77	77 DIV=SLOPE(Z.A(2).1(5).XFUT)/ORDIN(Z.A(2).XFUT)		1000	76 11=1(6)+1	F(1(6)-6E-(18-1)) GD TO 73	10011011		164=1(6)+4	00 78 1=161.162	UFUT (J)=RK	WFUT(J)=RK3	78 TFUT(J)=RK2*1.0E-10	***	\ A.W.	Mas 1-1.161	V=1, -4, 254 (1951) (441) 4(851) (1) 4 (851) 7 (141) 4 (951) 7 (111)	82 V(J+1)=(UFUT(J+1)+V(J)-Y+(TFUT(J+1)-TFUT(J))S+(WFUT(J+1)+WFUT(J)-SHANSS-T		2(J+1))**2**(1)*(VDLPDX*(1**AY/A(12)/(Y-1.))+DIV))/UFU7(J)	C DIAGNOSTIC OUTPUT	WRITE(IWRIT,2500)	(THOISH DIAGNOSTIC OUTPUT/ 80H J		2501 FORMAT (13-6E11-3)		CALL TANCAL (G.A.V. J.RM.D.UFUT, TFUT, TANAFU, TANAFU, WHUT)
			ISN 0423																			ISN 0447		ISN 0449		ISN 0451		TOWN CHOSE			ISN 0458		80 2	ISN 0461				15N 0467						ISN 0465		ISN 0466		ISN 0468

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DATE 77.205/15.46.58
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                                                                                                                                                                                       VBRADGA9
                                                                                                                                                                                                     VBRADSON
                                                                                                                                                                                                                                   VBPA 0592
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VBRAD613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          V(J+1)=(UFUT(J+1)+V(J)-V*(TFUT(J+1)-TFUT(J))--5+{WFUT(J+1)+WFUT(J)VBRAD514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VBRA 0615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARAD616
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                                                        VARABBBO
                                                                                    VBRA ISB2
                                                                                                   VBPA 0583
                                                                                                                             VBPADSAS
                                                                                                                                             VARADSA6
                                                                                                                                                           VBPA 0587
                                                                                                                                                                          VBRADSes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VBRA 0625
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                                                                     VBRADSBI
                                                                                                                 VARA DS84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARA D628
                                                                                                                                                                                                                                                                                                                                      SIGMA=D+(A(15)+.5)+E+5QRT((D+(A(15)+.5)+E)+#2+THET#2.+TOR/A(8))+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1)*(TFUT(J+1)+TFUT(J))*Y*(UFUT(J+1)+UFUT(J))*-5--25*(UFUT(J)+UFUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL(!!.3)=-TINT*AL(!!.2)-TOR*(UINT*THET+XSTEP*(-T*THET/WH+A(8)/UL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26.3+19)**2*A(1)*(WDLPDX*(1.-Y*AY/A(12)/(Y-1.))+DIW))/UFUT(J)
                                                                                    RECALCULATION NEAR SURFACE USING IMPROVED INTERPOLATION
                                                                                                                                                                                                                                                                                                                                                                                                             DD=DD/(1.+2. *XYZ*P0*DD*UL/SQRT(TQP)*A(6)*(1.+.54UL*WW))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CALL TANCAL (G.A.V. J. PM.D. UFUT, TFUT, TANAFU, TANBFU .WFUT)
 DS/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           V=1.4.25#(UFUT(J+1)+UFUT(J))*(WFUT(J+1)+WFUT(J))
                                                                                                                                                           R=(-XSTEP/A(1))*0.5*(TANBFU(J)+TANB(J+1))
                                                                                                                                                                                        R=(-XSTEP/A(1))*0.5*(TANAFU(J)+TANA(J-1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1/A(6)*(SORT (TOR)/DO+RM*SLOG(RR))*SIGMA))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WFUT (J)=UFUT (J)/(RK4/AY-.5+UFUT (J)++2)
                                                                                                                                                                                                     CALL FINTIR .U.W.TAU. J.UINT.TINT.WINT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CALL SOLVEB (UFUT(J), TFUT(J), DET, AL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IF(UPUT(J)/RK-.995)1057,1056,1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DELTA 995 FOR SCALING L AND G
                                                                                                                                                                                                                                 TOR=0.54(TINT+TFUT(J))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94 A(5)=TAUD /RK2/(1.+RK5)
                                                                                                                                                                                                                                                               RR=(ZJ+.5#R) *A(1)/A(6)
                                                                                                                                                                                                                   U.=0 .5*(UINT+UFUT( 3))
                                                                                                                                                                                                                                                                              JF (RR-LE-0-01GO TO 47
                                                                                                                                                                                                                                                 WE-SA(WINT+WFUT(J))
                                                                                                                                                                                                                                                                                                                                                                                 F(R0.GT.0.)XYZ=7.
                                                                                                                                                                                                                                                                                                                                                                                                                                           AL(11,21=-.5#51GMA
                                                                                                                                                                                                                                                                                                                                                                                                                          AL(11.1)=TDR+THET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DO 1056 J=1625,T6
                                                                                                                                                                          GO TO(86.87),11
                                                                                                                                                                                                                                                                                             D=60PD(RP)*RM
                                                                                                                                                                                                                                                                                                          E=WW#TOP/A18)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DO 93 J=1,161
                                                                                                                                                                                                                                                                                                                                                                                               DO=REDRO(RR)
                                                                                                                 DO 84 J=2.18
                                                                                                                                               85 11=1.2
                                                                                                                                                                                                                                                                                                                        THE T=1 .+0 #WW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1625=1(6)/4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RE-FLOAT(L)
                                                                                                                               ZJ=FLOAT(J)
                            1 TANHFU(3)
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12	
PAGE 12	
DATE 77.295/15.46.58	VRPADESC
05/360 FORTRAN H EXTENDED	
092/30	
VBRAD	UEDGE1=UFUT(L)
92	
(SEPT 76)	
	=

ISN 0511   UEDGE = UFUT(L)   UEDGE = UEDGT   UEDGE   U	DATE 77.295/15.46.58	VRPADERO	VARAD632	VBRADESS	VBRADE34	VERADESS	VBPAR636	VBRADEST	VERF IX 1	VARFIX 2	VBPF IX 3	VARIETY 4	VBRA DS 42	VBRF IX 5	VARAINS	VERADSAA	VAPANAS	VRRAINSAS	VBRAD647	VBPAR648	VRRADSAO	VRPACKSO	VRPARASI	VBRADSS2	VBRADESS	VBPA D654	VRRA DASS	VRRA DASA	VSPAD657	VBPA 0658	VARF IX 6	VBRADESO	VBRATKEO	VERADS61	VBRAD662
2.2 (SEPT 0513 C 0513 C 0513 C 0513 C 0513 C 0518 C 0518 C 0522 C 0523 C	VARAD	UEDGET=JFUT(L)		A(6)=A(1)*((.995*RK-UFUT(L))/(UFUT(L+1)-UFUT(L))+RL)		REDUCTION IN NUMBER OF PROFILE POINTS IF REGUIRED			JF(X.GT.0.8)G0 T0 1802	JF(16.GT.LIM1T.AND.CFR.GT.A(17))	1 CALE REDUCX(1,A.1)	IF(VOTHET(KVO).LT.VOTHET(KVO-1).AND.16.LT.20)	1 CALL REDUCK(2.A.1)	2 CONTINUE		X=X+XSTEP	NCOUNT=NCOUNT+1		GO BACK UP AND START THE CALCULATION AT THE NEXT X STEP		GO TO 101		TURBULENT B. L. CALC. TERMINATES								IF(TAUG-LT.0.0.AND.VODEL(KVO).LT.VODEL(KVO-!))KVONX=KVO-!			6 PETURN	
2.2 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5			v		***	v	****	v						180	U			U	v	v		v	v	U	•				10	10		U		10	
THE STANDARD		211		513					514	516		518		520		521	522				523				524	256	527	529	530	531	532			534	335
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\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOOBL(NONE)

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17204. SUBPROGRAM NAME = VBRAD

534 . PROGRAM SIZE = SOURCE STATEMENTS = \*STAT! STICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

20K BYTES OF CORE NOT USED

## REQUESTED OPTIONS OPTIES , NOMAP

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14.

BLLAM 52	BLLAM 53	BLLAW 54								BLLAM 62	BLLAN B3	IN I AVED CALCUISCETSA	CEINE AX. VISCEISE	BLLAN 68	BLLAN 69	BLLAM 70	BELAN 71	BILLAM 72	BILAN 74	BLLAN 75	STRVS341 STDVS342	EAESVATA	STRVS3A4	STRVS345	STRY S346	STPV 5347	STRUSSAB	STRVS350	STPV 5351	STRV S352			BULAN 78	STRV 5354	STRVS355	STRV 5356				BLLAF 62	BLLAM 83			
XCP(1)=0•0	DO 237 J=2,15		IMPIT= IVI(15)	AMACH= VA(18)	RE=RE+CDS (VA(20))	AMACN=AMACH+COS(VA(20))	A12= VA(12)	112= 1ABS(1V1(12))		CONVERT CP DISTRIBUTION TO VEZUINE DISTRIBUTION	1031 210717 207 10 207 1777272	THE PROPERTY OF THE PROPERTY O		TERM=1.04(A12-1.0)/2.0*AMACN**2	POPIN=TERMS+(A12/(A12-1.0))	CP(1)=(P0P)N-1.0)/(A12/2.0#ANACH##2)	TELIMETOPINA (AIZ-1-0)/AIZ)	ALARIMATITED OF	XWIE 0.0	URR(1)=0.0	O-0=XENXAJ	XMAX =0 0	THTMAX=0.0	DO 400 J=2.15	THETA=(CP(1)-CP(J))/((J-1)*VA(2))	IF (THETA-LT-THTMAX) GO TO 400	WAY = ( LI) #VA(2)	THEMAX=THETA	-	-		IF(IVI(14).NE.0) WRITE(IWRIT.211) XCP(1),CP(1),XMN,URR(1),TETIN,	00 201 J=2,15		CPX=ACPX*XCPX~CP(1)	IF (XCPX.LT.XMAX.AND.CP(J).GT.CPX) CP(J)=CPX	PEP INF=(1.0+0.5*A12*CP(J)*AMACH**2)	PEPU-PEPINE /POPIN	XMNSG=2.0/(A12-1.0)*(1.0/PEPO**((A12-1.0)/A12)-1.0)	TELINEPEDINF ** (AIZ-1.01/AIZ)	THE CONTRACTOR OF THE TANK THE CONTRACTOR OF THE TANK THE CONTRACTOR OF THE TANK THE	URR (J)=SQRT (UESQ)	XXIN=SORT (XMNSO)	The state of the s
		237							U		,	150	!								U								400		U													
0000	0021	00 22	0023	00 24	9200	90 56	0027	9200			000	2500		0032	0033	0034	00 30	0000	0036	66 00	0400	0041	0042	0043	9000	0045	200	6400	0000	1500	200	2500	900	9900	9500	1500	6500	0900	0061	7900	5000	9900	1900	
	ISN		ISN					ISN				KSN		,			200				N						NO.					SN	NS						ISN					

FIDNATIST AF12.51
CALL SLOPY( XCP. IRR . 15.58RA. NMAX. UBAR. UBARP)
IF(IVI(14),NE.0) WRITE(INRIT,156)
INITIALIZE VALUES
SINT= 0.
VAL= .5#(A12-1.)
PON= (A12-2.)/(A12-1.)
TRATX=1.0+VALSAMACHS#2
FRATOR (1.+VAL*AMACHS+2) ++POV
CF 2FTR=148, 7325, #TAN(VA(20)) #TRATX/RF
HINC=2,308
HDMDST=7.26
OFL TA2=6.29234/SQRT(RE#UBARP(1))
METRATE(HING+I.)-I.
THE ME ASORT (TRAT) #0FL TA2##2/TRAT##PDW#LIBARP(1)
GFZ(1)=0.0
WOTHET(1)=DELTA2
WODEL(1)=DELTA1
DTH=DELTA170.2412
RD2=DELTA29RE
000000
TECTATELA . WE . O. WOITE CIMOTT. 1001
PECINICIA DAME OF WRITE (TWRIT - 101) S. TM . DEL TAT LIFE TAZ . D.TH . RD2
DSUVE=DS
AAA=0.45*TPATO.PE
MARCHING PROCEDURE STARTS HERE
DADEA : 180 A DE DE

-	LEVEL					
	ISN	9110			PF(DS-LT. DSUUE) UBART=ORDIN(UBAR.DSUUE.S+DS)	BLLAMIA?
	ISN	0120			000= SORT(1.+VAL+AMACH+#2#(1(BAR1##2))	PLLAMIAS
	ISN	0121			FMACH= AMACH#UBAR1 /000	BLLAM144
	ISN	0122			TRAT= 1.+VAL&FMACH**2	PLLAW1+5
	ISN	0123			UBAR58= (16AR1**5/TRAT**(1.5)	PLLAM146
	ISN	0124			SINT= SINT+TINT(S.S+DS.UBARSA.UBARSB)	BLLAMIAT
	ISN	0125			IF(S+DS+LT+0+0151) SINT=TRAT/6+04URARI##5#(S+DS)	BLLAMIDE
	ISN	0127			DELTA2=SORT (AAA+TRAT#+3/UBARI++6+SINT)	BLLAMIAG
	ISN	0126			THGRP=ORD IN LUBARP, DSLUE, S+DS)	BLLAMISO
	ISN	0129			TM=-RE/SORT (TRAT) *DELTA2**2/TRAT**POW*TMGRD	BLLAMISI
			v			BLLAMISS
			0 (		TEST FOR LAMIN SEPARATION	BLL AMISS
	TAN	2.10	,		PF(TM_GT_0, 082) GO TO 19	BIT ANISS
			v			PLLAMISA
	ISN	0132			CALL SPLNIITWM.TWL,35.0.0,0.0.2.2.1.0, VP.DVP,DVP)	BLLAMIST
	ISN				CALL SPLNIX (TWM, TWL, 35,0,0,0,0,0,2,2,TM, TL,DYP,DYPP)	RLLAMISA
	ISN	0134			CALL SPLN1(TWM,TWH,35.0.0.0.0.2.2.TM,HINC,DVP,DVPP)	BLLAM359
	ISN	0135			CALL SPLNIK (TWM, TWH, 35.0.0.0.0.0.2.2, TM, HINC, DYP, DYPP)	STLLAW160
	ISN	0136			PF(HINC.LT.1.0) HINC= 1.0	BLLAMIAI
	ISN	0138			IF(TL.LT.0.) TL= 0.	BLLAWIRZ
	ISM	0140			HE TRATE(HINC+1.)-1.	BLLAM163
	ISN	0141			DELTA2=SORT (AAA+TRAT+43/UBARI++6+SINT)	BLLAM164
	ISN	0142			DELTA1= H &DELTA2	PLLAM165
	ISN	0143			RD2=RE4JBAPI+DELTA2+TRAT++POW/TRATO	BLLAMIGA
				-		BLLAMIGT
				5	UMPOTE R. L. THICKNESS	BILAMIES
	TSN	4410	,		DO INCEDEL TA 2 STRAT 6 SPINX	RI LAWITO
	ISN				DIINCEHINCEDINC	RI LANSTE
	100				PECHANIC I TO 251 GO TO 170	BI CANTO
	Z				### 1 - / 120 HINC / 945-	RI I AMITT
	Ten				THE FACTOR OF THE PROPERTY OF	DI 1 44174
				•	1 (0.3-37,/315,0HINC)))	BILANITS
~	ISN	0150			DINC=120.0#D1 INC/(36.00-PCLFAC)	PLLAMITE
	ISN				GO TO 380	PLLAM177
	ISN			370	DINC=10.5968*D2INC	BLLAMITE
	ISN			380	DTH=15.04DINC/TRAT ##POW/(22.0-7.0#TRAT)	BLLAMITO
	ISN				JF(HINC.LT.2.25) POLFAC=-DTH##2#RE#TMGRD	BLLAMIBO
			U			FLLAMIRI
					COMPLITE SPANNISE, MOMENTUM THICKNESS	BLLAMINZ
	1	****			71 - 11 ·	Der Anies
	101				772-5007(10 40) (%) 1421	100 P 100 P
	100				71NT=71NT+71NT(S.S+0S.771.772)	Ac. 4 60 64
	ISN	0140			THE 72500 TOF 1 TAZ / 18 AD 1 1 4 (0 , 33 75 / RF # 7 1 N T ) # # (1 , 0 / 3 , 0 )	RIT AWIRT
	i		v			BLLAMISS
			v		COMPLITE THE SPANNISE SHEAR STRESS	PLLAMIRO
			v			BLLAMION
			·			PLLAM191
	ISN	0100	•		CF2T =CF2FTP /THETZ	BLLANIO2
			, (		CTHENET TOANSTITON	BLLAMING
			,	,	UNDOTE SPECI INANSITION	DLLAMIN

	-		HDMDST=44.1+0.525*POLFAC	BLLAMOS
15N 0162	2		HDMDST#HDMDST/(7.4-PQLFAC/15.0-PQLFAC*#2/144.0)	PLLAWIOS
	U			BLLAMIOT
15N 0163			XILE = UPDIN(XLAMDA + VA (2) + S+5S)	BLLAMIOR
15N 0164	4		WAE = ACDS(XLLE)	VISCFISB
	9		CH1=0.01758 #RD2#POLFAC/(DELTA2/DTH)	RLLA WEOO
15N 0166	9		OH = OH) *S IN ( NME )	ALLA WOOL
	U			BLLAW202
			CFV(N+1)=2.0*TL/RE#UBARI/DELTA?#(1.0+VAL*AMACH**2)/TRAT	BLLA WEGS
15N 0168	9		CF2(N+1)=CF2T	BLLAMPOA
1SN 0169			SBRA(N+1)= (S+05)	BLLAMPOS
15N 0170	0		WODEL(N+1)= DELTA1	BLLAM206
15N 0171			WOTHET(N+1)=DELTA2	BLLAMPOT
15N 0172	2		7 ± 2 1	BLLAMZOB
ISN 0173	2		S= S+0S	BLLAWOOD
15N 0174			IF(IVI(14).NE.0) WRITE(IWRIT,101) S.TM.DELTAI, DELTAZ.DTH.RDZ.	BLLAM210
		-	I CFV(N).H.CFZT.CHI.UMRI.FMACH.SINT	ALLA W211
	0			BLLAMPT2
			TOS CON TRANSPORTED AND SCHARALIUM	SLLA MEIS
15N 0176		350	PSTST=VA(19)-S	BIT AWDIE
ISN OFF	1		TELOS. LECTOR LEGISLA CONTRACTOR SE	BIT AWOTE
	. 0		TELLIVITIES OF FACE OF THE TOTAL DESCRIPTION OF STREET	BIT AND 17
			FE (DS-LT-0-0001) GO TO 25	BLL AND S
			IF (DS-LT-DS-UME - AND- IVI (12) -(E-(-1)) GD TO 21	BIL AND TO
	2		JF(1VI(12)+3) 7,8,8	BLLAMP20
	91	1	IF(\$+05-VA(19)) 21,25,25	BLLAMP21
	11		IF(\$405-VA(19)) 9,25,25	BILLAM222
		0	F(112-2) 10.12.14	BLLAM223
15N 0189			FF(TM-LE.(-0.0206)) GO TO 21	SELLA WOPA
			RD2TR= 8.754/(TM+0.0206)+874.051	BLLAM225
15N 0192			JF(TM.GT.0.024) RD2TR= 11874839.#TM	BLLA M226
15N 0194	1		JF(PD2.GT-R02TR) GO TO 25	BLLAM227
15N 0196	9		GO TO 21	BLLA W228
18N 0197	11	12	WD2TR= 1+174*(RE*S/CHORD)**(0.46)	BLLA WP 29
	9		F(R02.6T.R02TR) G0 T0 25	BLL AM230
	9		<b>60 TO 21</b>	BLLAM231
15N 0201	11	14	IF(KTRAN-GT.0) GO TO 15	BLLAMESS
ISN 0203	13		PD2TR= 21711787.*TM4366762*TM4*2-4380632.*TM**3	BLLAM233
		-	+10453860.#TM##4	PLLA MP34
	:		IF(R02-LT-R02TR) GO TO 21	BLLAW235
	90		KTRAN= 1	BLLA WERE
	1		IF(IVI(14).NE.0) WRITE(IWRIT.33) S	PLLA M237
	6	33	FORMAT(3X,26HINSTABILITY DETECTED AT S= +F10.5)	VISCF159
	0		RD2UNS= RD2	BLLAN239
			SSHF= 0.	BLLAMEAG
	2		SUNS T= S	BLLAM241
	13		GO TO 21	BLLAM242
	•	15	SSHFE SSHF-TINT(S-DS.S.TMO.TM)/(S-SUNST)	BLLANDAS
	2		PD2TR= RD2UNS+914.+27250.*SSHF+328333*SSHF**2	BLLAM244
	9		JF (RD2-6T-RD2TR) GO TO 25	BLLAM245
15N 0218	8	19	IF(IVI(14).NE.0) WRITE(IWRIT.102) S	RI LA NO & K
	-			

55-12 PAGE	
DATE 77-295/15-55-12	BLLAWOAR
05/360 FORTRAN H EXTENDED	
098/300	0 70 22
BELAN	F(1VI(14).E9.0) GO TO 22
2.2 (SEPT 76)	•
2.2	0221

0221		JF(IVI(14), E0.0) G0 T0 22	BLLAMEAB
0223		IF(RD2-67-450.0) WRITE(IWRIT-107) S	BLLAWERO
0225		IF(RD2-LT-450.0) WRITE(IWRIT-108) S	BLLANZSO
0227	22	CONTINE	BLLAW251
0220		<b>6</b> 5 TO 29	BLLAM252
0220	21	IF(N-MAX) 5.28.28	BLLANESS
0230	25	FF(IVI(14).NE.0) WRITE(IWRIT.106) S	BLLAWESA
0232		60 10 38	BLLANESS
0233	28	JE(IVICIA).NE.0) WRITE(INRIT.109)	BLLANDS6
			RLLAWES7
•	U	SET UP FOR TURBULENT B. L. CALCULATION	BLLAMESA
			BLLANESO
0235	52	KVOL= N	PLLAW260
0236		VA(1)= DELTA2	BLLANERS
0237		VA(3)= S	BLLA W262
0236		VA(4)= RD2	BLLANESS
0239		IF(VA(4)-LT-150-)VA(4)=150-	VSCFX 16
0241		VA(5)=+DMD5T-0.61	BLLANZ64
0242		140= 11	BLLAW265
	٥		BLLAMESS
0243		IF(IVI(14).NE.0) WRITE(IWRIT.160) VA(1).VA(4).VA(5).H	BLLAM267
0245	160	2	VISCFIGO
		1 2X//5X,21HMOMENTUM THICKNESS/C= .E14.5/	VISCF161
		2	VISCF162
		3 SX.19HIDELTA-DELTASTAR)= "F8.4/	VISCF163
		45X, 19H = ,F8.4)	V15CF164
0246		RETURN	BLLAM273
	U		BLLAWPTA
0247	100	00 FORMAT(3X,1HS,6X,2HTM,9X,6HDELTA1,7X,6HDELTA2,7X,3HDTH,	VISCF165
		18X+3+RDL+9X+3HCFX+0X+1+H+8X+3HCFZ+7X+3HCH1+7X+54UE/VJ +3X+	VISCF166
		2 2HME.3X.4HSINT/)	VISCFIBT
0248	101	FORMAT(F6.3.6E12.4. F8.4.2E12.4.3F6.3)	BLLAM278
0249	102	FIRMAT(/10X,264SEPARATION OCCURED AT S= .F10.5)	VISCFI68
0250	106	FORMAT(/10x,24HTRANSITIONS OCCURS AT S= ,F10.5)	VISCFI69
0251	101	107 FURMAT(/10x,12HSHORT BURBLE ,2x,2HS=,F10,5/)	STRVS358
0252	108	108 FURMAT(/10x,124LDNG BUBBLE , 2HS=,F10.5/)	STRV \$359
0253	109	FORMAT(//10x,37HBDUNDARY LAYER CALCULATION COMPLETED.	VISCFI75
		_	VISCEI76
0254		END	BLLAMZES

MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

8854, SUBPROGRAM NAME = ALLAM 253, PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\* \*\*\* END OF COMPILATION \*\*\*\*

. NOMAP
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W

15N 0002		STRIPK 2
•	1 KVOL. NMAX. ISTATN. ITRANS. IOUTP. ISTEPD. MACHNO. XTRANS. SWPANG. IUNIT) STRIPK	NIT)STRIPK 3
, 0	THIS ROUTINE COMBINES THE LAWINAR AND TURBULENT	STRIPK 5
	MODIFIED CHORDWISE ROUNDARY LAYER PROGRAMS	STRIPK 6
ISN 0003	DIMENSION CP(1) ,XLAMDA(50),1(15),4(20),58RA(1),VODEL(1),	STRIPK 8
	-	STRIPK 9
	SET PERMANENT VALUES OF CERTAIN A AND I VALUES	STRIBET
		STRIPKIZ
ISN 0004	REAL MACHIND	STRIPKIS
	I(1)=ISTATN	STRIPK14
	1(2)=ISTEPO	STRIPKIS
1000 NSI	7(3)=500	STATES
		STRIPKIB
	1(6)=24 Commence of the commen	STRIPKIS
	1(7)=0	STRIPKZO
	1(8)=	STRIPKZI
	0=(6)=0	STRIPK22
ISN 0014		STRIMES STRIMES
	I(12)=IRMS	STRIPK25
	1(13)=1	STRIPKZ6
	I(14)=Inute	STRIPKZZ
	I(15)=lunit	STRIPK28
0200 NSI	IC=XYM	STRVS360
ISN 0021	A(2)=0.025	STRIPKS
	A(6)=0.0	STRIPK32
	A(7)=0.001	STRIPK33
	A(8)=0.15	STRIPKSA
	A(9)=0.4	STRIPK35
	A(10)=2.0	STRIPK36
150 M27	A(12)=1.4	STRIMEST
	A(13)=0.89	STRIPK39
	A(14)=0.76	STRIPK&O
	A(15)=0.7	STRICKAL
	A(16)=0.01	STRIPK#2
ISN 0033	A(17)=0.0005	STPIRES
	A(19)=XTRANS	STRIPKeS
	A(20)=SIPANG	STRIMAS
	A(1)=0.001	STR! PKA7
25 00 VS		

LEVEL		(SEPT	36	STRIPK 05/360 FORTRAN H EXTENDED	DATE 77.295/15.55.55
ISN	0040			A(5)-5:0	STRIPKSO
-		U			STRIPKSI
ISN	0041			KWOL=1	STRIPKS
ISN	0045			JWRIT=1(15)	STRIPKS3
ISN	0043			11=1 ABS(1(1))	STRI PKS4
ISN	**00			REFRX	STRIPKSS
ISN	9000			SWPANX=180.0/3.1415926#A(20)	STRICKS6
ISN	9000			1F(1114).E0.0) WRITE(IWRIT.109) 1(1), SWPANX	STR19K57
ISN	900			JF(1114)-E0.0) GO TO 91	STRIPKS8
ISN	00200			WRITE(1WRIT,103) 11	STRIPKS9
ISN	0051			F(1(1).LE.0) WPITE(1WRIT.107)	STRIPKEO
ISN	0053			IF(1(1).GT.0) WRITE(PWRIT,108)	STPICKEI
		v			STRIPKEZ
ISN	0055			WRITE(IWRIT,77)	STRIPK63
ISN	9500		11	FORMAT(//15x,38HTHE BRADSHAW I VECTOR FOR THIS CASE IS /)	VISCF177
ISN	0057			DO 74 J=1.5	STRIPK65
ISN	9500			11=1+5	STRIPKEE
ISN	6500			32=3+10	STRIPK67
ISN	0900		74	WRITE(IWRIT,73) J. 1(J),J1(J1),J2,1(J2)	STRIPK68
ISN	0061		73	FDRMAT(3(10X,2H1(+12,2H)=+13))	VISCFI78
ISN	0062			WRITE(IWRIT, 78)	STRIPKTO
ISN	0063		78	FORMAT(//15x+38HTHE BRADSHAW A VECTOR FOR THIS CASE 15 //)	VISCF179
ISN	1900			DO 81 1€1.10	STR I PK 72
ISN	9900			11=1+10	STR IPK 73
ISN	9900		81	WRITE(IWRIT,83) J.A(J),J1.A(J1)	STRIPK74
ISN	1900		83	FURMAT(2(10x,2HA(,12,2H)=,E11,4))	VISCFIRO
ISN	9900			WRITE(IWRIT,88) RE	STR IPK76
ISN	6900		88	FORMAT(//6x,43H REYNOLDS NO. BASED ON THE EQUIV. INFINITE //	VISCFIEL
			-	16X+22H YAWED WING CHORD IS . 1 PE12.4//)	VISCFIB2
ISN				WRITE(IWRIT,89) SWPANX	STRIPKTO
ISN			89	FORMATIC/10 X - 25HLOCAL EQUIVALENT INFINITE //	VISCFIRE
			-	1 10X -27H YAVED WING SWEEP ANGLE IS .F6.3//)	VISCFIRA
		v			STRIPKAZ
		U		START THE LAMINAR CALCULATION	STRIPKES
		v			STRIBERA
ISN	00 72		16	CONTINUE	STRIPKES
ISN				CALL BLLAM! SHRA, VODEL, VOTHET, CFV, CFZ, CP, XLAMDA,	STRIKES
			-	I -A-RE-HO-KSEP-KVOL-NMAX)	STRIPKET
ISN				JF(KSEP.EQ1) WRITE(IWRIT.104) SBRA(KVOL)	STRIPKOR
ISN				JF(A(3).GE.0.9999) KVDMX=KVOL	STRIPKAGY
ISN				IF(A(3).GE.0.9999) Gn Tn 99	STRIPKOO
ISN	00 80			IF (KVOL.GE.NMAX) GD TD 99	STPIPKOI
		v			STP I PK92
		v		START THE TURBULENT CALCULATION	STRICKOS
		U			STRICKOA
ISN	00 82			CALL WBRADI SBRA . VODEL . VOTHET . CFV , CFZ , CP . 1 , A . RE . HO . XLAMDA .	STRIPKOS
			1	K3EP • KVOMX • KVOL)	STRIPKOK
ISN				IF(KSEP.EG1) WRITE(IWRIT, 105) SBRA(KVOMX)	STRIPKOT
ISN				F(1(14), EQ. 0) GO TO 101	STRIPKSE
ISN			66	WRITE(IWRIT,106) 11	STRITKOO
ISN	98 00			F(1(1).LE.0) WRITE(IWRIT,107)	STRIPIOO
ISN	0600			FF(101).GT.0) WRITE(IWRIT,108)	STRIPIOI
ISN	2600		101	CONTINUE	STRIPIOZ

0	(SEPT 76)	9	STRIPK	08/360	05/360 FORTRAN H EXTENDED	ENDED	DATE 77.	DATE 77-295/15-55-55
	, ,	RETURN	£				STRIBION	104
	· -	103 FORM	FORMAT(1H1/5X.36HBOLNDARY LAYER CALCULATION AT STRIP	DARY LAYER	CALCULATION AT	STRIP .	STRIPIOS	105
		1 13	13.10H INITIATED//				STRIPIOT	101
		104 FOR	FORMATI/SX. 46HSEPARATION IN LAMINAR CALCULATION AT X/C=,	ION IN LAM	INAR CALCULATIO	IN AT X/C=+	STRIPIOR	106
		1 F1	F10.37/5X . 33HCALCULATION PROCEEDS AS TURBULENT//)	NTION PROC	FEDS AS TURBULE	INT//)	STRIBIOS	100
	-	105 FORM	FORMATIASX . 48HSEPARATION DETECTED IN TUPBULENT B. L. CALC AT	I'M DETECT	ED IN TUPBULENT	T B. L. CALC AT	STRIPHIO	110
			4HX/C=,F10.3//5X,35HB.L. CALC. TERMINATES AT THIS POINT//)	SHB .L . CAL	C. TERMINATES	IT THIS POINT//	STRIPIII	1111
	-	106 FORM	FORMATI/5X.45HBOUNDARY LAYER CALCULATION FINISHED AT STRIP	I LAYER CA	LCULATION FINES	SHED AT STRIP	STRIPIL	7112
		1 .14//	000				STRIPILE	413
	-		FORMATI /10X . 13HLOWER SURFACE // )	SURFACE//			VISCFIRE	:185
		100 FORM	FURMAT(/10X, 13HUPPER SURFACE//)	SURFACE//)			VISCFIP6	941.
			FORMATI/5X.36HBOUNDARY LAYER CALCULATION AT STRIP .13.10H INITIATEVISCFIB?	I LAYER CA	LCULATION AT ST	TRIP . 13. 10H INI	TIATEVISC	187
		2 0	ID ASK. STREFFECTIVE SWEEP ANGLE IS TAKEN TO BE . F6.2 )	EED ANGLE	IS TAKEN TO BE	,F6.2 )	VISCFIER	188
	v						STRIPLIB	118
		END					STRIPIIO	110

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(SD) SIZE(MAX) AUTOBBL(NONE)

3236. SURPROGRAM NAME =STRIPK 100. PROSRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

NO DIAGNOSTICS GENERATED #STATISTICS#

\*\* \*\*\* END OF COMPILATION \*\*\*\*\*

152K BYTES OF CORE NOT USED

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	RCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE(MAX) AUTODBL(NONE)	ş
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VBRSUB 2	VBRSUR 3	VBRSUB 4	VRRSUB 5	VBRSUB 6	VRPSUB 7	VRRSUR B	VBRSUB 9	VBRSUBIO	VBRSUB11	VBRSUR12	VBRS UB13	VBRSUR14	VBRSUB15	VARSUR16
SLARGUTINE FINT (R.U.W.T.J.A.B.C.)		FOR USE IN WERAD		SIMULTAENEDUS TRIPLE INTERPOLATION		DIMENSION U(1), T(1) of(1)	C1=1	C2=0.54(R*#2+R)	C3=0.5*(R**2-R)	A=C1 *U(J) +C2*U(J+1)+C3*U(J-1)	B=C1+T(J)+C2+T(J+1)+C3+T(J-1)	C=C1+W(J)+C2+W(J+1)+C3+W(J-1)	RETURN	2
	v	v	v	U	v									
ISN 0002						7	-	_	_	-			_	15N 0011

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

552. SUBPROGRAM NAME = FINT 10. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT I STICS\*

\*STATISTICS \* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

DATE 77.295/15.56.11

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MOPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

1111 GORD=18.7\*Z+14.85 1109 GORD=GORD\*XLAM 1110 GGRD=90.9\*Z-49.75 GG TG 1109

15N 0006 15N 0009 15N 0010 15N 0011 15N 0012

RETURN

VBRSUB32 VBPSUB33

VBRSUB20 VBRS UB30 VBRSUB31 \*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

12. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

164K BYTES OF CORE NOT USED

336, SUBPROGRAM NAME = GORD

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EF ALC NOANSF TERM FLAG(1) DUMP	VRRSUB34
NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBBL(NONE) SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP	FUNCTION GRAD (FR. H. 1A. IR.N.)
OPTIONS IN EFFECT	15N 0002

VRRSUB34	VBRSUB35	VBRSUB36	VRRSUB37	VBRSUR38	VBRSIR39	VBRSUBAO	VBR5UB41	VBRSUR	VRPS(B43	VBR5UB#4	VAPSURAS	VRRSUBA6	VRRSUR47	VRPSUB48	VBRSUB49	VBRSUBSO
FUNCTION GRAD (FR.H.IA.IR.N.)		FOR USE IN VBRAD AND BLLAM		SLOPE OF A FUNCTION AT ITS TABULATED POINTS		DIMENSION FR(1)	JF(N-TA)1,201	2 G=(-1.*FR(1A+2)+4.*FR(1A+1)-3.#FR(1A))/(2.*H)	GO TO 5	1 IF(N-IB)3.4.3	4 G=(3.4FR(18)-4.4FR(18-1)+FR(18-2))/(2.4H)	60 70 5	3 G=(FB(N+1)-FB(N-1))/(2.4H)	5 GRAP=6	RETURN	END
	U	U	U	·	v											
0005						_	_	-	9000	-	_	-	_	_	_	_
ISN						157	ISN	ISN	ISN	ISN	ISA	ISN	ISA	ISN	ISN	ISA

MOPTIONS IN EFFECT \*NAME (MAIN) OPTIMIZETS) LINECOUNT (55) SIZE (MAX) AUTODBLINONE)

#OPTIONS IN EFFECT#SOURCE FBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 456. SUBPROGRAM NAME = GRAD 12. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT I STICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

DATE 77.295/15.56.18

	DPT(2) . NOMAP
163	OPT(2)
(SEPT	OPTIONS
LEVEL 2.2	REGUESTED

	4
	3
	FLAG
	TERM
	ANSF
	ON O
	*
NE)	NOXRE
HAME (MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE (MAX) AUTODBL(NONE)	E EBCDIC NOLIST NOTECK DBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(I) DUMP
TON CXAI	FURMAT
12E (P	AP N
8 (98	NON
DUNTE	BJEC.
LINEC	DECK
(2)	DN F
IMIZE	NOLIS
1 001	CDIC
MAIN	E EB
NAME	SOURCE
TIONS IN EFFECT	
NS IN	
00110	

VBRSUB51	VBPSUR52	VRRSUBS3	VRRSURSA	VRRSURSS	VBRSUBS6	VBRSUBS7	COMF 1104	VRRSUBSO	VRRSURGO	VBRSUB61	VBRSUB62	VBRSUB63	VARSURGA	VBRSUBAS	VBRSUB66	VBRSUR67	VARSUBAR
[A,G,X)		FOR USE IN VBRAD AND BLLAM		POLATION		COMMON /EXTEND/ XCMAX.LASTI	A(1)		) GD TD 4		9/(9*(	ORDIN=(1R)*A(J+1)+R*A(J+2)		15-111/6	ORD IN=SL*(X-XCMAX) + A(15)		
FUNCTION ORDIN(A.G.X)	v	C FOR USE IN V	U	C. LINEAR INTERPOLATION	U	COMMON JEXTEN	DIMENSION	15=LAST!	BF(X-GT-XCMAX) GD TD 4	J=1NT(X/G)	2 R=(X-AINT(X/G)*G)/G	ORDINE(1A)	RETURN	4 SL=(A(15)-A(15-1))/G	ORD INFSL*(X-)	PETURN	END
0002 FUNCTION ORDIN	v	C FOR USE IN V	U	C. LINEAR INTER	v						N			•		0014 PETURN	

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*\* POPTIONS IN EFFECT\*\* SOURCE EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

14. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

164K BYTES OF COPE NOT USED

482, SUBPROGRAM NAME = ORDIN

HE OLE STED OPTIONS OPTIESS NOMAP OPTIONS IN EF

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-	2
3	SOURCE EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP
Z	6)
FECT NAME (MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE (MAX) AUTOBBL(NON	
P.	
ī.	

VRRSUB69 VBRSUB70	VBRSUB71	VBRS UB72	VBRSUBYS	VBRSUBTA	VBRSURTS	VBRSUB76	VBRSUB77	VARSUBTR	VBPSUB79	VBRSUBBO	VBRSUBBI	VBRS UBB2	VRRSUBB3	VRRSUBEA
FUNCTION RECORD(2)	FOR USE IN VORAD		BRADSHANDS L FUNCTION		COMMON STHRED / XLAM	RLORD=.442	1F(Z-,18)1103,1104,1104	1104 PF(Z-1.1)1105.1106.1106	1105 RLORD=.095055*(2.*7-1.)4*2	GO TO 1103	1106 WLORD=.0164EXP(-10.4(Z-1.1))	1103 PLORD=PLORD / SORT ( XLAM)	RETURN	E.B.
2000	·	U	U	•	6000	*000	5000		1 1000				1119	1012
ISN							_	_	ISN				-	_

APPTIONS IN EFFECTANAME(MAIN) OPTIMIZE(2) RINECOLNT(55) SIZE(MAX) AUTODBL(NONE)

MOPTIONS IN EFFECT SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 11. PROGRAM SIZE = 410. SUBPROGRAM NAME = PLORD SOURCE STATEMENTS = \*STAT I STICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

REQUESTED OPTIONS OPT(2) . NOMAP

NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOURCE ERCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMI NOXREF ALC NOANSF TERM FLAG(1) DUMP OPTIONS IN EFFECT

C FOR USE IN VBRAD  C SIMPSONDS RULE INTEGRATION  C DIWENSION FR(1)  DO004  DE(N-IA)/2  1 F(N-IA-2*J)1.2.1  00006  2 S=0.  00007  NI=N-1  00009  3 S=S+H4(FR(I)+4.4FR(I+1)+FR(I+2))/3.  GD TO 4  0011  1 S=H4 (5.4FR(I)+4.4FR(I+1)+FR(I+2))/12.  1 Mai=N-1  0014  5 S=S+H4(FR(I)+4.4FR(I+1)+FR(I+2))/3.  4 SIMPSN=S  0017  RETURN	VBRSUBB5	VBRSUBA7	VBRSUBBR	VBRSURBO	VBRSUB90	VBRSUB91	VBRS UB92	VBPS UB93	VBRS(B94	VBRSUB95	VRRS UR96	VBRS UB97	VRPSUB98	VRPSUB99	VBRSIMOO	VBRSINGI	VBRSUIDS	VRRSUIDS	VBPSUTOA	VBRSUIOS	VRRSUING
50 00 00 00 00 00 00 00 00 00 00 00 00 0	FUNCTION SIMPSN (FR. IA.N.H.)	FOR USE IN VBRAD		SIMPSONDS RULE INTEGRATION		DIMENSION FR(1)	J=(N-1A)/2	JF(N-1A-24J)1.2.1	2 \$=0.	MI=N-1	DO 3 I=1A,N1,2	3 S=S+H4(FR(I)+4.*FR(I+1)+FR(I+2))/3.	60 TO 4	1 S=H# (5.4FR(1A)+8.4FR(1A+1)-FR(1A+2))/12.	1A1=1A+1	N1=N-1	DO 5 1=1A1.N1.2	5 S=S+H*(FR(1)+4.*FR(1+1)+FR(1+2))/3.		RETURN	C.V.
81 82 82 83 83 84 84 85 85 85 85 85 85 85 85 85 85 85 85 85						3	1	35	90	10	90	60	10	11	12	13	*	15	91	11	18

\*\* APPTIONS IN EFFECT\*\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP

550, SUBPROGRAM NAME =SIMPSN 17. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

MG(1) DUM

RECLESTED OPTIONS OPT(2) , NOMAP LEWEL 2.2 (SEPT 76)

NAME (MAIN) OPT IMIZE (2) LINE COUNT (55) SIZE (MAX) AUTODBL (NONE) OPTIONS IN EFFECT

RMAT GOSTHT NOXREF ALC MOANSF TERM FLA	VBRSUI 07	VARSOLOGO
SOURCE EBODIC NOLIST NOVECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC MOANSF TERM FLAN	FUNCTION SLOPE(A +G+N+X)	FOR USE IN VBRAD
	2000	
	ISN 0002	

POINT						451					
SLOPE OF A TABULATED FUNCTION AT AN APRITRARY POINT			30 TO 4		9/19	SLOPE=(14)*GRAD(A.G.1.N.J+1) +R*GRAD(A.G.1.N.J+2)			t-111/6		
C SLOPE OF A TAB	DIMENSION A(1)	TEST=G#(N-1)	1F(X-6T-TEST) GO TO 4	JEINT (X/G)	2 R=(X-AINT(X/6)*6)/6	SL.DPE=(1R)*G	3 CONTINUE	RETURN	4 SLDPE=(A(N)-A(N-1))/G	PETURN	500
	15N 0003	15N 0004	SN 0005	15N 0007	8000 NSI	6000 NSI	15N 0010	ISN 0011	ISN 0012	ISN 0013	4100 WS
	SN	SN	NS	SH	NS	NS	NS	NS	NS	ISN	20

VBRSUITA VBRSUITA VBRSUITA VBRSUITA VBRSUIZI VBRSUIZI VBRSUIZI

VBRSUITI VBRSUITZ VBRSUITZ VBRSUITA VBRSUITZ

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

MOPTIONS IN EFFECT SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP

13. PROGRAM SIZE SOURCE STATEMENTS = \*STATISTICS\*

DIAGNOSTICS GENERATED \*\*\*\*\* END OF COMPILATION \*\*\*\*\* 2 \*STATISTICS\*

164K BYTES OF CORE NOT USED

642, SUBPROGRAM NAME = SLOPE

REGLESTED OPTIONS OPT(2) . NOMAP

NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBEL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(I) DUMP OPTIONS IN EFFECT

VBRS U124	VBRSUIZS	VBRSOISE	VBPSUIZY	WBR S UI 28	VBRS U129	VERSUISO	VBPSUIJI	VRPSUITE	VBRSUI33	VBRSUI34	VARSUISS	VBRS U136	VSPSUI37	VBPSUI38
							•							
SUBROUTINE SOLVEB (D.E.DET.A)	40000 114 1501 600	FOR USE IN VINAN		SOLUTION OF TWO SIMULTAENEDUS	LINEAR ALGEBRAIC EQUATIONS		DIMENSION A(2,3)	DET=A(1.1)*A(2.2)-A(2.1)*A(1.2)	JF(DET)1,2,1	1 D=(A(1,2)*A(2,3)-A(2,2)*A(1,3))/DET	E=(A(1,3)*A(2,1)-A(2,3)*A(1,1))/DET	2 CONTINE	PETLIPN	exe exe
	0 (	0	U	v	v	v			9	9			•	•
15M 0002							0003	0000	2000	0	00	8	6000	00 10

MOPTIONS IN EFFECT+SOURCE EBODIC NOLIST NOBECK OBJECT NOMAP NOFOPMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(I) BUMP

\*STATISTICS SOURCE STATEMENTS =

9. PROGRAM SIZE = 398. SUBPROGRAM NAME = SOL VEB

STATISTICS NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

SAME GOATE   SUBRIGATINE SPRINT(X.NETPA.NP.A.CFR.DELTAI.DELTA2.HI JA.TAJJ.V.W.W 1985 SIJ50
SUBROUTINE SPRINT(X.NSTED.ALPHO.A.CFR.DELTAI.DLTAD.V.N.  ITAMA.T.MB.RK.RKZ.RK4.12.16.THETA.NP.AV.RKS.DLPDX.VDLPDX.INRIT)  C COUTHUT OF PROFILE RESULTS  C DIMENSION A(1) . W(50) . TAU(1) .  IF (MPD2110.2110.2111  Z TAMA(1) . TAME(1) . W(50) . W(1) .  RF (MPD2110.2110.2111  Z TAMA(1) . TAME(1) . RAZESO) . W(1) . W(50) . W(1) .  RETE(INRIT.2003A(1) . RAZESO) . W(1) . W(50) . W(1)
SUBRQUTINE SPRINT(X.XSTEP.APPO.A.CFR.DELTA1.DELTA2.H1 JU.TAU.  TAMA.TAB.RK.RK2.RK4.12.16.THETA.NP.AV.RK5.DLPDX.VDLPDX.INRII  C GUTBUT OF PROFILE RESULTS  C GUTBUT OF PROFILE RESULTS  C GUTBUT OF PROFILE RESULTS  I TAMA.TANG(1) . V(1) . V(60) . TAU(1)  Z TAME(10.2110.2111 . TANG(1) . RA(1) . W(60) . W(1)  Z TAME(10.2110.2111 . TANG(1) . TANG(1) . W(60) . W(1)  Z TAME(10.211.201)  WRITE(10.11.202)  WRITE(10.11.202)  WRITE(10.11.202)  WRITE(10.11.202)  WRITE(10.11.202)  WRITE(10.11.202)  TAME(2) - LA(1)  WRITE(10.11.202)  Z TAME(1) - LA(1)  Z TAME(1) - LA
2002 2003 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
2002 2003 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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2002 2003 2003 2004 2005 2005 2005 2005 2005 2005 2005
2000 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2
00 00 00 00 00 00 00 00 00 00 00 00 00

DATE 77.295/15.56.35 05/360 FORTRAN H EXTENDED 13.2F8.4.3E12.4.E13.4) SPR INT 210 FORMAT(1H 3H 211 FORMAT(1H0) 2112 RETURN END LEWEL 2.2 (SEPT 76) ISN 0040 ISN 0041 ISN 0042 ISN 0043

VBRSUIB6 VBRSUIBB VBRSUIBB

PAGE

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

42. PROGRAM SIZE = NO DIAGNOSTICS GENERATED SOURCE STATEMENTS = \*STATISTICS\* \*STAT I STICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

160K BYTES OF CORE NOT USED

2464, SUBPROGRAM NAME = SPRINT

REQUESTED OPTIONS OPTICES . NOMAP

LEVEL 2.2 (SEPT 76)

1	4
	11 04
	LAGE
	RH
	SF TE
	MON
	ALC
NE.	NOXREF
MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE(MAX) AUTODAL(NONE)	CE EBGDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
MAX) AUT	DFORMAT
SIZE	MAP N
UNIT ( 55.)	BJECT
LINECO	DECK 0
E(2)	ST K
IMIZ	MOLI
IN) OPT	BOOLC
ELMAI	MCE E
NAM	SOL
EFFECT	
Z	
OPTIONS	

VBRSU190	VRP S UI 92	VARS UT 94	VBRSUIDS	VBRSIN 96	VBPSUIDT	COMF 1198	COMF 1199	VRPSUROI	VARSUZOZ	VBRSUZO3	VRPSUZOA	VBPSU205	VARSUZOS	VBRSUROT	VBPSUPOR	VBRSUE09	
						. 7(1)							0				
TR.W)						. 0(1)	. W(1)						(3)+0+(1)				
RM.D.U.T.TA.		TIC ANGLES			FERR 155	. v(1)	, TB(1)					(6)0	#2+2 . * (A(8) *T				
NCAL(G.A.V. J	BRAD	COMPUTES THE CHARACTERISTIC ANGLES	HE SOLITTION		EON. 21 OF BRADSHAW AND FERRISS	A(1)	TACES		A(1)/A(6)	D(AAJ)		5151*C+D1A	(15)+-5)+()+				
SUBROUTINE TANCAL(G.A.V. J.RM.D.U.T.TA.TR.W)	FOR USE IN VBRAD	COMPUTES THE	FOR USE IN THE SOLUTION		EON. 21 OF B	DIMENSION	-	.0=9	AA J=FLOAT ( J) +A( 1) /A(6)	D=A(B) SRMSCORD(AAJ)	C=#(3)+T(3)	P1=(Y(3)+(A(15)5)+C+D)/U(3)	P2=SQRT((D+(A(15)+.5)+C)++2+2.*(A(8)+T(J)+D+C))/U(J)	TA( J)=01+P2	TB( J)=P1-P2	RETURN	-
U	U		v	U	u u												
0005						6000		*000	9000	9000	1000	9000	6000	00 10	1100	00 12	2000
ISN						ISN		ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISK	ISN	14.01

MOPTIONS IN EFFECT MANNE (MAIN) OPTIMIZE (2) LINECOUNT (55) SIZE (MAX) AUTODBL (NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

12. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

164K BYTES OF CORE NOT USED

822. SUBPROGRAM NAME = TANCAL

## RECLESTED OPTIONS OPTIZISMONAP

	dwn
	: EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
	F TERM F
	C NOANS
	4
ONE	NOXREF
JTOORLIN	I GOSTMT
IAIN) OPTIMIZE(2) LINECOUNT(56) SIZE(MAX) AUTODBL(NON	NOFORMA
56) SIZE	T NOMAP
ECOUNT	X OBJEC
(2) LIN	ST NODEC
DPT IM 1 ZE	IC NOL 1
(MA PN)	
T NAME	SOURCE
IN EFFEC	
OPTIONS	

3000 NET	SUBROUTINE VNUSUBI RETHET - XLAMDA, VNUE FR. XME SO.)	VBRSUZII
		Versuerz
	C FOR USE IN VIRRAD	VERSU213
		VBRSUETA
	C COMPUTE THE NASH EFFECTIVE VISCOSITY	VBPSUZIS
ISN 0003	30M=0.76	VBRSU217
1SN 0004	4.13	VBPSUZIA
15N 0005	RC=0 e89	VBRSUZIO
	·	VRRSU220
9000 NSI	R=PETHET	VBRSU221
1SN 0007	XL=XLAMDA	VBPSU222
	FCA=1.0	VARSURES
6000 NSI	FTHA=1.0	VBRSU224
ISN 00 10	1F(XMESQ.LT.0.020) GO TO 5	VARSURES
	U	VBRSURZA
ISN 0012	XXM=RC+(G-1.0)/2.0*XMESQ	VBPSU227
	TERM=1.04XMM	VBRSUZZA
15N 0014	FTHA=TERMes (-XOM)	VARSURZO
ISN 0015	ARG=SORT(XWM/TERM)	VARSUZ30
ISN 0016	FCA = XMM/ASIN(ARG) *#2	VISCFIRE
ISN 0017	5 FCE =FCA	VARSUR32
	FIRE-FILE	VBRSUE33
	v	VBRS U234
SN 00 19	B=25.11/17.08	VRPSURES
ISN 0020	C1=6.012/17.08*(1.0-XL*FCA/FCE)	VARSUZJE
ISN 0021	RL=ALDG10 (R/XL+FTHA)	VRP SU237
ISN 0022	C2=XL*(RL**2+8*RL) *FCA/FCE	VBRSU238
ISN 0023	GC1-C2	VRRSURES
ISN 0024	PRE=-8/2.0	VRRSURAO
ISN 0025	FDST=SQRT(8##2/4.0-C)	WBRSUR41
1\$N 0026	A1=PRC+POST	VRP SU242
15N 0027	ANS1=10.0**A1.R/FTHE	VBPSU243
SN 0028	VNUEFR*ANS1	VBRSU244
	·	VPRS UZ45
ISN 0029	RETURN	VRR SUZ46

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

\*STATISTICS\* SQURCE STATEMENTS = 29, PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\* \*\*\* END OF COMPILATION \*\*\*\*

164K BYTES OF CORE NOT USED

774. SUBPROGRAM NAME = VNUSUB

ISN 0002	SUBROUTINE REDUCK (IN-A-1)	REDUCK 2
	C TO INTERPOLATE TO NEW GRID	REDUCK 4
ISN 0003	COMMON AREDUCY UF	REDUCK 6
	TANIFU(50),V(50),161,RK,RK2,RK3	PEDUCK 7
*000	DIMENSION A(1) , 1(1) , TFUTX(50) , MFUTX(50) , 1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (	COMF 1200
5000	F(IN-E0.2) GO TO 120	REDUCK10
1000	LOAT(1(6))*2./3.)	REDUCK11
9000	761=7(6)+1	REDUCK12
6000	00 1058 J=1•161	PEDUCK13
21.00		PEDUCKI.
00 12		PEDUCK16
0013	10590UFUT(1)=(UFUT(1S+1)*ALOG(10+05/R1S) -UFUT(1S)*ALOG(10-05/(R1S+10	REDUCK17
	1)))/ALOG(1.+1./RTS)	PEDUCKI8
0014	TFUT(J)==5#(TFUT(IS)+TFUT(IS+1))	REDUCK19
90 15	WFUT(J)==5*(WFUT(IS)+WFUT(IS+1))	REDUCKED
91 00	TANAFUL)=.5#(TANAFU(IS)+TANAFU(IS+1))	REDUCK21
0017	TANBEU(J)=.5#(TANBEU(1S)+TANBEU(1S+1))	PEDUCK 22
90 00	V(J) = 54(V(15)+V(15+1))	REDUCK23
6100	8601 D1 D2	REDUCK 24
0021		PFDUCK26
0022	TFUT(.)=TFUT(.1S)	REDUCK 27
0023	TANAFU(1)=TANAFU(1S)	PEDUCKER
0024	TANBFULJ)=TANBFULIS)	REDUCK 29
0025	10	REDUCK30
90056	1058 CONTINUE	PEDUCK31
0027	A(1)=A(1)*1.5	PEDUCK32
9200		PEDUCKSS
		REDUCK34
0000	A PLANT CO.	REDUCKSS
05.00		PEDIOCES S
0031	1 (9)	PEDUCKER
0032	A(1)=A(1)/1.5	REDUCK39
0033	T6=1 (6)	PEDUCKAO
		REDUCK#1
0034	UFUTX(1)=1.585#UFUT(1)585#UFUT(2)	PEDUCK42
0035	WFUTX(1)=1.585*WFUT(1)585*WFUT(2)	REDUCK#3
90036	TFUTX(1)=(4.*TFUT(1)-TFUT(2))/3.	REDUCK##
06.00	TANAFATTELA. #TANAFITTELA. SOFTTOTT	PEDIOCK
00 40	TAMBEX(1)=(4.*TANBEU(1)-TANBEU(2))/3.	REDUCK 1
1+00	WX(1)=(4.4V(1)-V(2))/3.	REDUCKAR
		-

PAGE																																					
DATE 77.205/15.56.50	PEDUCKSO	PEDUCK51	REDUCKS2	PEDUCK53	REDUCKS4	PEDUCK55	REDUCKS6	PEDUCKS7	PEDUCXSA	REDUCKS9	REDUCKEO	REDUCK61	PEDUCKEZ	PEDUCK63	REDUCX64	REDUCK65	REDUCK66	PEDUCK67	REDUCK68	REDUCK60	PEDUCKTO	PEDUCK71	PEDUCX72	PEDUCX73	PEDUCK74	REDUCKTS	REDUCK76	PEDUCK77	PEDUCX78	REDUCK79	REDUCKED	PEDUCKFI	PEDUCKEZ	REDUCK®3	PEDU CKR4	REDUCKAS	PEDUCK86
REDUCX OS/360 FORTRAN H EXTENDED	DO 130 J=2,16	PS=(2+J)/3	Ī	IF(15=E0-2#(15/2)) N=2	IF(J.EQ.34(J/3)) N=0	UFACT=ALDG(1.+1./1S)	UFAC2=0.0	IF (N. NE.O) UFAC2=ALDG(1.+N/(3.+TS))	UFUTX(3)=(UFUT(1S+1)#UFAC2#NFUT(1S)*(UFAC1-UFAC2))/UFAC1	JFUTX(3)=((3-N)&TFUT(1S)+N*TFUT(1S+1))/3.	WFUTX(J)=((3-N)*MFUT(IS)+N*WFUT(IS+1))/3.	TANAFX(J)=((3-N)+TANAFU(1S)+N+TANAFU(1S+1))/3.	TANBFX(J)=((3-N)+TANBFU(IS)+N+TANBFU(IS+1))/3.	VX(J)=((3-N)*V(IS)+N*V(IS+1))/3.	CONT TNLE		00 140 J=1,16	UFUT(J)=UFUTX(J)	TFUT (J)=TFUTX(J)	MFUT(3)=MFUTX(3)	TANAFU(J)=TANAFX(J)	TANBFU(J)=TANBFX(J)	W(J) = VX(J)	CONTINUE	1xx=16+1	1XY=16+2	DO 150 J=1XX.1XY	UPUT(J)=RK	TFUT(5)=RK2+1.0E-10	WFUT(3)=RK3	TANARU(J)=TANAFU(J-1)	TANBFU(J)=TANBFU(J-1)	V(J)=V(J-1)	CONTINUE		RETURN	96
(SEPT 76)															130	v								140										150	v		
	42	13	:	\$	11	64	90	51	53	3	88	98	57	56	29		99	62	62	63	3	99	8	29	99	8	2	7	72	2	2	2	20	4		78	20
EL 2.2	-	SN 0043	ISN 0044	ISN 0045				-			ISN 0055		ISN 0057	15N 0058	1SN 0059		ISN 0060	1SN 0061	ISN 0062	ISN 0063	15N 0064	ISN 0065	15N 0066					ISN 0071	ISN 0072	ISN 0073	ISN 0074	15N 0075	ISN 0076	15N 0077			15N 0070
LEVEL	=	-	-	=	-	2	=		2	2	-	=	-	-	2		-	-	=	-	=	-	-	2	-	-	-	-	=	2	-	-	=		50	-	

APPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*\*\* OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

78. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\* \*\*\* END OF COMPILATION \*\*\*\*\*

148K BYTES OF CORE NOT USED

2964. SUBPROGRAM NAME =REDUCK

REQUESTED OPTIONS OPTIESS NOMAP

ISN 0002	SUBROUTINE VTRANS	The part with				VTRANS 2	
	THIS ROUTINE INTERPOLATES THE BOUNDARY LAYER DISPLACEMENT	PPOLATES TH	BOUNDARY IA	YER DISPLACE	MENT	VTRANS 3	
	10	E PREVIOUS	SRID TO THE N	FW GRID	Service States and Service Ser	VTPANS 5	
						VTRANS 6	
ISN 0003	COMMON / VISCOM /	DZE(50)	. DZU(50)	OF (20)			
	-	ZD(80)	· 20(80)	DOSTL(150).	, mostu(150)		
	~	SCFT (30)	. SCFB(30) .	CFFKL(30)	. CFFKU(30)	. COMF IX94	
	School of Application	DDDSTU(30,50)	. (05	DDDSTL(30,50)	(0)	. COMF 1X95	
	•	EPSNW1 (20).	. EPSNW2(30).	CPUK1(20)	. CPLK1(20)	. COMF IX96	
	ıo	CPUK2(20)	. CPLK2(20) .	DELUK1 (20)	DELLK1(20)	. COMF TXO7	
	•	DELUK2(20)	DELLK2(20).	CLGG(20)	(PS1X(20)	. COMF 1X98	
	Table when the Street S.	EPS2X(20)	, WOTHET (150)	SALES CONTRACTOR	ITEX(30)	COMF 1X99	
		CPIU(50)	. ETAK(30) .	CPVU(150)	CP1L(50)	COMF 1100	
	O STATE OF THE PERSON OF	CPW.P(150)	SBRAL (150).		CFVL(150)	. COMF 1101	
	•	GW(150)	DELSTU(50).		DELSTL (50)	COMF 1102	
	•	CWU(2)	CWL(2)	PU(25)	PL(25)	COMF 1103	
	U	DELSU(150).		CPVL (150)	150)		
	•	CPWIP(150)				3	
15N 0004	COMMON /SAVES/	NXO( 30 )	XPUTTO (30.50)			SAVES	
15N 0005	COMMON / CPCAL	AVCHELL 30 P.		DCDMXIERO	CCOMXI (30)	TONE BY	
	1 )	COE SAD			CONTRACT		
	. ~	CPOLICEO	FPS1	FPS2	CMAXDT	COMP TX77	
		CWAYDR	COTRAD	SONDING TO 1	SOND! (30)	COME IV 78	
	•	MACHUP (30)	MACHON (30)	SHKPU(30)	SHKPB(30)	COMP DO	
	•	JMXU(30)	. CPBBAR .	-	-		
		EMSO				COMF 1X83	
15N 0006	COMMON / VITERP /	. xourop(80).	. ETABLD(80).	DXLSTU(30,50)	109	. COMF TX83	
		DXLSTL(30.50)	. (05	KTMOLF	. NXOLD	. COMF TXR4	
	~	K70LD	, KBOLD			COMP BX85	
15N 0007	COMMON / LARGN /	PF (20, 30, 90)	•	DJK1 (30,90)	45.000	COMF 1X45	
	Translation Notestaline	DJK2(30,90)		DJK3(30.90)		COMF 1X46	
	~	DJK4(30,90)		DJK5 (30.90)	•	COMF PX47	
	3	DJK6(30.90)		DJK7(30,90)	•	COMF 1X48	
	•	DJKB (30.90)		DJK9(30,90)	Caramater .	COMF TX49	
		DJK10 (30,90)		DJK11(30.90)		COMF IX50	
15N 0008	COMMON / INTER /	(06) LX	. ETA(30) .	ZT(20)	(06)NIX	. INTER 2	
	-	XIE(00)	. XIC(90)	XIR(90)	CTAL(30)	. INTER 3	
	2	ETAC(30)	. ETAR(30) .	COFU	, chel	. PNTER A	
	n	ZCWO	. ZLVL .	ZRVL	ZCVL	. INTER 5	
	•	PDUM(30)	. EDUM(30) .	XMIN	, XMAX	. INTER 6	
	10	YMAX	. ZMAX .	YMIN	ZMIN	. INTER 7	
	•	2rw	DAGZ .			INTER 8	
15N 0009	COMMON / INDEX /	JHAX	. KMAX	LMAX	KTM1	. INDEX 2	
	- Control of the Cont	KTIP	KTIPI .	JWLE	JE (30)	. INDEX 3	
	N	SWIE	, JTE (30) .	LWING	LWINGU	. INDEX 4	
		JMAX 1	. KMAXI	LMAX1	KROOT	. COMF IX 1	
		105				INDEX 6	

ISN 0012 COMMIN REAL ISN 0014 COMMON SS S S S S S S S S S S S S S S S S S	LDG I CAL COMMIN / PARM / REAL COMMON / WING /	SOLLY FCR IRUMP IBODIN IDISK SOLLY FCR EXTHSH IBODIN A1 A5	WBCPRT ISPAN ISPAN IVISC AXISYM ISAVE WBCPRT WBCPRT IVISC	BBCPRT IF INR IMAPR	. ICRUDR	. FLAGS 3
<b>am</b> 4 w ± w ± w ± w ± w € w	PARM	FCR EXTMSH IRUMP IO ISK SOLV FCR EXTMSH IRUMP IROD IN A1 A5 C2 C2 C2 C2 C2 C2 C2 C2 C2 C2	ISPAN REMESH IVISC AXISYM MBCAFT ISAVE ISPAN REMESH IVISC	IF INR IMADR	. ICRUDR	I XIDNI
m 4 6 7 0 m 4 6 7 0 m 4 6	MING WING	EXTMSH IRUMP IRUMP IODISK SOLV FCR EXTMSH IRUMP IRUMP IROD IN A1 A5 C2 C2 CC2 CC3(30,90) RCD MACHIO WROOT WLET NTEI	REMESH AND	IMADR	. YAW	
<b>4 6 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ </b>	PARM VING	IBUMP ID ISK SOLV FCR EXTHSH IBUMP IBOD IN A1 A5 C2 CC3(30) CC5(30,90) BLDL MACHNO YROOT YROOT YROOT NLET	IVISC AXISYM ISAVE WBCPRT ISPAN REWESH IVISC			. INPT 2
6 - 4 m 4 6 - 4 4 m 4 6 - 4 4 m 4 6	PARM	IBOD IN ID ISK SOLV FCR EXTMSH IBUMP IBOD IN A1 A5 C2 CC3(30) CC52(30,90) BLDL MACHNO YROOT YROOT NLET	AXISYM ISAVE WBCPRT ISPAN REMESH IVISC	ITWIST	. IFOILT	. INPTX 3
un 4 u un 4 u un 4 u	PARM / WING	ID ISK SOLV FCR EXTHSH IBUDP IBOD IN A1 A5 C2 C2 CC3(30) CC52(30,90) RLDL MACHNO YROOT XLET NTE!	ISAVE WBCPRT ISPAN REMESH IVISC	AREA	. IBLOUT	INPTX 4
		SOLV FCR EXTMSH IBUMP IBODIN A1 A5 C2 C2 CC3(30) CC3(30) CC3(30) CC3(1	WBCPRT ISPAN REMESH IVISC	IPLOT	. MSHINT	. COMF IX 4
um 4 6° um 4 6° um 4 6		FCR EXTRSH IBLUMP IBOD IN A1 A5 C2 C2 CC2 CC3(30,90) RCDC MACHIO YROOT XLET NLEI	ISPAN .	BBCPRT	. BODY	. COMF IX 5
m 4 w ≈ w m 4 w		EXTMSH IBLUMP IBLUMP A1 A2 C2 CC2 CC3 CC3(30,90) BCLL MACHID WRCDIT CCET CC3 CC3 CC3 CC3 CC3 CC3 CC3 CC3 CC3 CC	REMESH .	IF INR	. ICRUDA	. COMF TX 6
46 - 46746 - 40846		18UMP 180D IN A1 A1 A5 CC CC CC CC 3(30) CCS 2(30.90) BLDL MACHIO YROOT YROOT NLET NTEI	IVISC .	IMAPR	. YAW	. COMP IX 7
\$		1800 IN		ITWIST	. IFOILT	. COMP IX B
~~ & m <b>~</b>		A1 A5 C2 CC3(30) CC52(30.90) BLDL. MACHNO YROOT XLET NTE!	AXISYM .	AREA	. IBLOUT	COMP NY 9
	NING /	A5 CC2 CC3(30) CCS2(30.90) CCS2(30.90) PLDL MACHIO YROOT XLET NTE!	A2 .	A3	. A4	. PARM 2
«m • u = = = = = = = = u	NING /	CC3(30) CCS2(30,90) RCS2(30,90) RACHIO YRDOT XLET NTEI NTEI	GAMMA .	MACHNO	300 .	. PAPM 3
m • w = ~ = ~ ~ m • w	NING /	CK3(30) CKS2(30.90) BLD MACHID YRDOT XLET NTEI NTEI	EMEXP(2) .	CK1(30)	. CK2(30)	. PAPM 4
<b>∢</b> ທີ່ ≃ ໙ ฅ <b>∢</b> ທ	MING	CK52(30.90) RLDL MACHIO YRODT XLET NLEI NTEI	CK4(30) .	CK21(30)		. COMP IXIO
ห = ¯ = <\ m < ห	NING /	MACHIO MACHIO MACHIO XLET NEI NEI	•	CK1X(30)	• CK2X(30)	. COMF IX!
	NING /	MACHIO YROOT XLET MLEI NTEI	WCDF			COMF 1X12
~ ~ ~ <i>m * u</i>	N I N I	YROOT XLET NLET NTEI				COMP IX13
≖ ୟ ମ ≄ ମ	Mary Caboon	NLEI NTEI	XLER .	XTER	· TIP	. WING 2
<b>ഡ m ∢ ഗ</b>		NTEI	XTET .	SREF	. SWEEP	. INPTX 7
m <b>+</b> in		MTE1	ME1(10) .	XLE1(10)	. STRUE	. INDTX 8
<b>4</b> 100		- Lucy	YTE1(10) .	XTE1(10)	SXPUS .	. INPTX 9
2			SSPAN	TH ICK(11)	. ZWNGWL	. INPTX 10
		NP AN	vp(111)	THETP(11)	. NTWST	
9		YTWST(11) .	INUX(11)	INCX (11)	. XF(180.11)	
		ZF (180 . 11) .	KSMTHS(11).	MOMX	. XLE(30)	MELX
<b>80</b> (		XLFW(30) .	CDRD(30)	CORDW(30)	CORDINGILL	MING
•		XTE(30) .	HEACT .	CMEAN	. XTEW(30)	. WING II
∢ (		NSO .		KX0(12)	. KX1(12)	
		NX0(12)	NX1(12)	VX0( 12.10)	. YXI(12.10)	
		xx0(12.10).	XX1(12.10).	DXP0 (12)	• DXR1(12)	. AIRFOITO
١٥		DXT0(12)	OXT1(12)	ALPHAN	. MIPLE	. AIRFOILL
<b>u</b> !		. IXALLA	XLEWX(30) .	XTEWX(30)	CORDX	· CHORD 1
u (			*Ox	XI.EWP(30)	. XTEWP (30)	· VSCF X3 1
٥		KSWICH				VSCFX3 2
NOMMOD SI DO NSI	/ WINGBC	1 2.m.	ZAWO.	TWIST(30)		COMP IX#2
-		WBCL (30,90)	•	WBCU (30 . 90)		COMP IXA3
ISN 0016 COMMON	•	WBGUOR ( 30,90)	•	WBCL OR ( 30.90 )	106	COME 1107
17 COMMON	N / XYCOE /	x(30.90)	XIY(30,90).	XIX(30)		COMP IXTR
•		XIV3(30,90)	· Internation	XX (30)	Section of the second	COMP IXTO
2		XINK(30,90)				COMF 1X20
ISN 0018 COMMON	N / YAWOPT	. KIX	K2X .	K3X	. K4X	. COMF IX87
-		KSX .	. х9х	K7X	. K8X	. COMP IXER
2		KP1X .	KMIX			COMF IXA9
ISN 0019 CDMMD	COMMON / VTRANZ	/ DELLIP(80) .	DELDN(80) .	(08)00	. DL (80)	. COME 1109
		· (08)	ODE (80)	XDUT (50)	. DSLU(80)	. COMF 1110
2		DSLL(RO)	DUITED .	DL1(80)	. COD SUI (80).	. COMF 1111
n		DDDSL1 (80) .	popson(80).	DDDSLOEBO	. XDUTD1(80).	. VSCF X4 2
•		@UI(80)	CPL1(80)	CPUO(89)	. CPLO(80)	
S		CPUTX(80)	CPLIX(PO) .	CPUDX(80)	. CPLOX (80)	VSCF X4 4
٠		· xv.	NXOC/11			VSCFX4 5

LEVEL	2.2	LEVEL 2.2 (SEPT	16	VTP ANS	098730	OS/360 FORTRAN H EXTENDED	1	XTENDED	DATE	DATE 77.295/15.57.04	
ISN	84 90		24	24 CONTINUE						VTP A MID6	
		v								VTRAMOT	
		·							•	VTRANIOR	
ISN	00 79			DO 70 JE1 NXOLD						VSCF X452	
ISN	0000			CPUI (1)=CPU(K1.J)						VSCF X453	
ISN	1900		20	CPL1(1)=CPL(K1.J)						VSCF XASA	
ISN	0082			CALL SLOPY! XOUTOD, CPUT .NXOLD, XOUT, NX, CPUIX, DDU!	XOLD.XO	UT.NX .CP	CIX.	(1000)		VSCF X455	
ISN	0083			CALL SLOPY(XOUTOD, CPLT.NXOLD, XOUT, NX, CPLTX, DOL	KOLD.XO	UT.NX.CP	LIX.	004.)		VSCFX456	
ISN	4800			DO 71 JE1 NXOLD1						VSCF X457	
ISN	9000			CPUO(J)=CPU(KO.J)						VSCF X458	
ISN	9800		-	O-LO(3)=(PL(KO,3)					-	VSCF X459	
ISM	1800			CALL SLOPY! XOUTO! . @UD . NXOLD! . XOUT . NX . CPUDX . DOU!	XOLD1 . X	DUT .NX.C	5	(nog•		VSCF X460	
ISN	9800			CALL SLOPY! XOUTO! . CPLD . NXOLD! . XOUT . NX . CPLOX . DOL!	XOLD1 . X	DUT.NX.C	PLOX	, DOL.)		VSCF XA61	
ISN	6800			DO 72 JE1 .NX						VSCF X462	
ISN	0600			CPU(K.J)=FL IN(CPUIX(J), CPUOX(J), ETA(K), ETACLD(KI), ETACLD(KO))	PUOXES	.ETA(K) .	ETAG	LD(KI).ETAOLD(KO))		VSCF X463	
ISN	1600		72	72 CPL(K.J)=FLIN(CPLIX(J), CPLOX(J), ETA(K), ETAOLD(KI), ETAOLD(KO))	PLOX(J)	.ETA(K) .	ETAG	LD(KI), ETABLD(KD))		VSCF XA64	
		·								VTRAMILI	
ISN	2600		20	20 CONTINUE						VTRAM112	
		v							•	VTRAN113	
ISN	0003			RETURN						VTPAN114	
100		U		CONTRACTOR OF STATE O					•	VTRANIIS	
ISN	1000			CNO CONTRACTOR OF THE CONTRACT						VTRA NI 17	

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(I) DUMP

93. PROGRAM SIZE = 2392, SUBPROGRAM NAME =VTRANS SOURCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

LEVEL 2.2 (SEPT 76)

## REQUESTED OPTIONS OPTERS NOMAP

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(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBBL(NONE)	RICE EBIODIC NOLIST HODECK OBJECT NOMAP NOFORMAT GOSTAT NOXREF ALC NOANSF TERM FLAGII) DUMP	
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AVCHEL (30) CPOL (30) CPOL (30) CPOL (30) CPOR S MACHON (30) CPBRAR MACHON (30) CPBRAR MACHON (30) SO) AZ CAL	-						
AVCHGU(30) AVCHGL(30) CPNL(30)	SUBROUT	ME CPCALC					CPCALC
AVCHGU(30) AVCHGL(30) CPAL(30) CPTBAR MACHUP (30) CPTBAR MACHUP (30) CPTBAR MACHUP (30) CPTBAR ENSO  AXU  AXU  CALSTL(30.50)  DAK(30.90)  CALSTL  CAL  WACL  AS  CAL  CAL  CAL  CAL  CAL  CAL  C		-	-				CHCALC
/ AVCHGU (30) - AVCHGL (30) - CPUL (30) -	SIL	TIME CO	ALL STATE OF	ESSURE DISTR	MOLLOW		CPCALC
CPOL (30) CPOL (30) CPOL (30) CPOR (30) CPOL (30) CPOR AR MACHUP (30) CPOR AR EMSO NGRIDS  NXLSTL (30,50) DAK (30,90) CX LAL WAL CZU KPINIX (30,90) KPINIX (30,90) KPINIX (30,90) CX LET CXI	COMMON		AVCHGU(30).	AVCHGL (30).	DCPMXU(30).	. DCPWXL(30)	
CPCU(30) . CPS1 CCPAXOB . CPTBAR MACHUP (30) . CPBBAR EMSQ . NGRIDS . XCUTOD (80) . CPBBAR EXCL XCUTOD (80) . CPBBAR . XCUTOD (80) . ETAOLD (80) . DXLSTL (30.50) . DAK (30.90) . AZL . CZL . WRCL (30.90) . AZL . CZL . WRCL (30.90) . AZL . CZL . WRCL (30.90) . AZL . CZL . WRCE . MACHNO . WRAX . MACHNO . WRAX . MACHNO . WRAX . MACHNO . WRAX . WROT . WRAXI . WROT . WREI		100	CPNE (30)	CPOL (30)	JMXL (30)	. CPNU(30)	. COMF IX76
CMAXDB . CPTBAR . MACHUN(30) . JMXCHUN(30) . JMXCHUN(30) . MACHUN(30) . MACHUN (30,90) . MACHUN (3	~		CPCD(30)	CPS1	EPS2	. CMAXDT	. COMF 1X77
MACHUP (30) MACHON (30) MACHUN (30) MACHUN (30) CDBRAR EMSO NGRIDS  MALSTL (30.50) FAOLD (80) FE (20.30.90) DJK (30.90) DJK (3	2		CMAXDB .	CPTBAR .	SONPU(30)	. SONPL(30)	. COMF IX78
JMXU(30) GPBRAR EMSQ NGRIDS  XDMLSTL(30,50)  KTOLD KBCLD  FF(20,30,90)  DJKE(30,90)  DJKE(30,90)  DJKE(30,90)  DJKE(30,90)  DJKE(30,90)  DJKE(30,90)  DJKE(30,90)  DJKE(30,90)  CZL  AZU  AZU  CZL  PJUMP(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX  AS  GAMMA  CZ  PJUMP(30,90)  KPINDX  AS  GAMMA  CZ  PJUMP(30,90)  KPINDX  CZL  PJUMP(30,90)  KPINDX  CZL  PJUMP(30,90)  KPINDX  CZL  PJUMP(30,90)  KPINDX  CZL  PJUMP(30,90)			MACHUP (30).	MACHDN(30).	SHKPU(30)	. SHKPB (30)	. COMF IX PO
EMSQ . NGRIDS  XXUTOD(80), ETAOLD(80),  K7OLD . K8OLD  DJK2(30,90)  DJK3(30,90)  DJK3(30,90)  DJK3(30,90)  DJK3(30,90)  DJK3(30,90)  DJK3(30,90)  AZU  CZU  AZU  AZU  CZU  PJUMP(30,90)  KPINIX(30,90)  KPINIX(30,90)  KPINIX(30,90)  KRAZ  CZ  AS  CZ  AS  CZ  HLOL  MACHOO  KMAX  KTIP  JMAX  KTIP	•		JMXU(30) .	CPBRAR .	CPU(30.50).	. CPL(30,50).	. VSCF X4
XGUTGD (80)   ETAOLD (80)     DXLSTL(30.50)     KTOLD	•		EMSO .	NGRIDS			COMF IXE!
DXLSTL(30.50)   ROLLD   RETEO.30.90   DJK4(30.90)   DJK4(30.90)   DJK6(30.90)   DJK6(30.90)   DJK6(30.90)   DJK6(30.90)   DJK10(30.90)   DJK10(30.90)   DJK10(30.90)   DJK10(30.90)   RDL   RD	COMMON /	VITERP	-	ETAOLD(80).	DXLSTU(30,50)	201	. COMF TXR3
KTOLD KTOLD KAGLLD FF (20.30.90) DJK (30.90) DJK (6130.90) AZL CZL CZL CZL CZL CZL CZL CZL CZL CZL C	-		DXLSTL(30.5	. (0		. NXOLD	. COMF IXBA
PF (20, 30, 90)     DJK2 (30, 90)     DJK (430, 90)     AZU	8		K70LD .	KBOLD			COMF TX85
DJK6(30.90) DJK6(30.90) DJK6(30.90) DJK(6(30.90) DJK(10(30.90) DJK(10(30.90) DJK(10(30.90) AZU CZU AZU CZU AJUNP(30.90) KPINIX(30.90) KPINIX(3	COMMON		PF (20,30,90	•	DJK1 (30,90)	•	COMP 1X45
DJK6(30.90) DJK6(30.90) DJK6(30.90) DJK6(30.90) DJK6(30.90) WINGE (ZUM WING (30.90) AZU CZU AZU CZU CZL CZU CZL CZU CZL	-		DJK2(30,90)		DJK3(30,90)	•	COMF 1X86
DJK6(30,90) DJK8(30,90) DJK8(30,90) DJK8(30,90) WINGEC / ZLWC , ZPWU WEGL (30,90) KPINDX (30,90) KPINDCX / JWAX KTIPL , WCOE MACHNO INDEX / JWAX KTIPL , WTETT JWTE , JTE(30) JPI WING / YPUDT , XLER XLET , YTEI(10) CPCOT SSPAN NPAN , YPUII) YTWST(11) , INUX(11)	~		DJK4(30,90)	•	DJK5(30,90)	•	COMP IXA7
DJKB (30.90)  DJKIO (30.90)  JJKIO (30.90)  JJKIO (30.90)  JJKIO (30.90)  KPINDX  CZ	n		DJK6(30.90)	•	DJK7 (30,90)	•	COMF IX48
DJK10(30,90)  WINGEC / ZLWL . ZPWU WEGL (30,90)  JUNP / AZU . CZL  PJUMP (30,90)  KPINDX(30,90)  KPINDX(30,90)  KPINDX(30,90)  CZ C C C C C C C C C C C C C C C C C C			DJK8(30.90)	•	DJK9 (30 . 90)	•	COMF IXAO
WINGEC / ZLWL , ZPWU  WRCL (30.90)  JUMP / AZV , AZL  CZU , CZL  PJUMP (30.90)  KPINIX (30.90)  KPINIX (30.90)  A1	9		DJK10 (30,90	•	DJK11(30,90)	(0)	COMF 1X50
JUMP / AZU (20.90)  AZU (22) CZU (22) PARM / A1 (20.90)  RP INDX (30.90)  CX 3(30) (CX 4(30)  CX 3(30) (CX	COMMON	WINGBC			TW157(30)		COMF 1X42
JUMP / AZV	1		-		WBCU (30 ,90)		COMP 1X43
CZUP CZL PJUMP(30.90)  KPINDX(30.90)  A1	COMMON		AZV.	AZL .	BZU	. 82L	. JUMP
PJUMP(30.90)  KPINDX(30.90)  AS  CZ  GAMMA  CZ  CX3(30)  CX52(30.90)  BLDL  MACHNO  INDEX / JMAX  KTIP  JWTE  JWTE  JWTE  WING / YRUDT  KLET  KLEP  KLET  MEIT  MET  WING / YRUDT  KTIP  JWTE  MAXI  MAXI  MAXI  MAXI  MAXI  MAXI  MAXI  MET  WING / YRUDT  KTIPI  JWTE  MET  MET  WHEI  YTEI(10)  CROOT  YTEI(10)  YTWST(11)  YTWST(11)	•		CZO .	CZL.	COFF		. COMF IX14
KP INDX (30,90)	~		PJUMP (30,90	•	PCOEF (30,90)	0)	. COMF IX15
AS	3		KP INDX (30.9	• 10	PJUMPX (20,30)	301	COMF 1X16
AS GAMMA C2	COMMON /	PARM /	A1 .	A2 .	A3	. A4	. PAPM
C2 CX4(30) CX3(30) CX4(30) CX52(30,90) BLDL MAGNO INDEX / JMAX KTIP JWTE JTE(30) JWTE JTE(30) JWTE TEER XLER XLET XTER KTIP JWTE STE(10) CPCOT SSPAN NPAN YP(11) YTWST(11) INUX(11)			A5 .	GAMMA .	MACHIN	· COE	. PARM
CK52(30) CK4(30) CK52(30.90) BLDL WCOE MACHNO KMAX INDEX / JMAX KTIP1 JWTE JTF(30) JWTE JTF(30) JWTE JTF(30) JWTE TKMAXI JP1 WING / WRODT KLER KLET XLER KLET XLER KLET XTEI(10) KLET YTEI(10) KLET YTEI(10) KLET YTEI(10) KWEI YTEI(10) WPAN YP(11) YTWST(11) NUX(11)	2			EMEXP(2) .	CK1(30)	. CK2(30)	. PARM
CK52(30.90)   CK52(30.90)   CK52(30.90)   CK52(30.90)   CK52(30.90)   CK7P	3		CK3(30) .	CK4(30) .	CK51(30)		. COMF IX10
BLDL	•		CK52(30.90)	The state of the s	CK1X(30)	. CK2X(30)	. COMF IX11
MACHNO INDEX / JMAX INDEX / JMAX INTIP	2		BLOL.	WCDE			COMP TX12
INDEX / JMAX	REAL		MACHIO				COMF IXES
MTE TETA  JMAX1 KMAX1  JMAX1 KMAX1  JP1  WING / YRODT KLER  XLET YLET  NLET YEI(10)  NTEI YTEI(10)  CPCOT SSPAN  NPAN YP(11)  YTWST(11) NUX(11)	LOMMON	INDEX	JMAX .	KMAX .	LMAX	. KTM1	. INDEX
JMAX1 . JTE(30) . JMAX1 . KMAX1 . JP1 WING / YPEDT . XLER XLET . XTET . NLE1 . YLE1(10) . NTE1 . YTE1(10) . CPERT . SSPAN NPAN . YPE(11) . YTWST(11) . INUX(11) .	•		KTIP .	KTIP1 .	JALE	. J.E(30)	. INDEX
JMAX1 . KMAX1 . JP1 JP1 WING / YRUDT . XLER . XLET . XTET . XTET . XTET . XTET . XTET . XTET (10) . XTET (11) . XT	2		JWTE.	JTE(30) .	LWINGL	. LWINGU	. TNDE X
WING / YROOT , XLER , XLET , XTET (10) , XTES , XTE	n		JMAX1 .	KMAX1 .	LMAX1	• KR00T	. COMP IX
MING / YRODT . XLER XLET . XTET  NLEI . YLEI(10) .  NTEI . YTEI(10) .  CROOT . SSPAN  NPAN . YP(11) .  YTWST(11) . INUX(11) .			191				INDEX
xYET . YEI(10) . YEI(10) . SSPAN . YE(11) . (11) . INUX(11) .	COMMON	MING	VRCDOT .	XLER .	XTER	· TIP	. WING
. YEI(10) . . YTEI(10) . . SSPAN . . YP(11) .			XLFT .	XTET .	SREF	. SWEEP	. INPT .
. YTEI(10)	2		NET .	ME1(10) .	XLE1 (10)	. STRUE	. INPTX
* SSPAN * * * * * * * * * * * * * * * * * * *	3		NTE!	YTE1(10) .	XTE1(10)	• SXPUS	. INPTX
. WCX(11)	•		CPCOT.	SSPAN .	THICK(11)	. ZWNGWL	. INPT X 10
. INUX(11) .	20		NPAN .	W(111)	THE TP(11)	. NTWST	. AIRFOILS
	c		VTWST(11) .	INUX(11) .	INLX(11)	. XF(180.11)	. AIRFOT
. KSMTHS(11).	1		ZF (180 -11).	KSMTHS (11).	MOMX	. XLE(30)	. TNPT X 11
· CORD(30) .	8		VI FWERE	.027000		The second secon	
			ALE: F1301	COMPLISON .	CONTRACTOR	. CORDIN(11)	

March   Marc														
H			*		NSO	•	NS1		(XO(12)		(X1(12)		REOL	68
COMMUN / XYCOR / XYO(12,10) XXI(12,10) ADMIN ONTILIZE ALPHAM  F					NXO(12)		NX1(12)		X0(12-10)		VX1(12.10)		REDI	67
COMMIN   XYCOR   XYON   XYEN   XTEN					xx0112.1		xx1(12,10)		(21) OXX		DXR1(12)	4	PFOI	10
COMMON / VACOR / VANDET / KIX   VACOR   VACO			, ,		DXT0(12)		DXT1(12)		LPHAM		MIPLE	*	REDI	
COMMON / XYCOR / X(370)   XTEW(30)   XTEW(30)					NTION		MENYING		TEWX(30)		X UBU	Ċ	000	-
COMMON / YYCOF / XY1730, 00)  1			. u		***		aux		(OF)GMA II		XTF WD ( 30)	>	CEX	•
COMMENS / XYCOR / X(30,00) - XIY(30,00) - XX(30) - XX(30) - XXY(30,00) - XXY(30) - XXY(30) - XXYX(30) - XXXX(30) - XXXX(3					-				1001				Const	
COMMIN				10000	אינשט טביא		100 00 1000						-	
COMMIN	2100		COMMON	ATCOL	X (30.90)		A111.30.90		100141			1		0
2 CDHINN / YAWDPT / KIN (30,00)  2 CDHINN / YAWDPT / KIN (30,00)  1 CDHINN / YSCINP / IVENX			-		XIX3130.	106			(20)			5	XI Jul	51
COMMON / YAWDP / KIX			2		X1 WK (30.	606						כ	ME IX	20
1	0013		COMMON		K1X	•	KZX		3x		K4X		MF IX	24
COMMON / VSCINP / VSCINP   V			-		KSX	•	KAX		17X		KBX		MIL EX	88
COMMON / VSCINP / 195AX 15TOP 101TPR 101TPR 15TEPD 1  2			2		KPIX	•	KMIX					๖	MF TX	00
1	00 14		COMMON	VSCIND /	IVSMAX		ISTOP		VITER		IVCON		M T A	13
2					EPSV15	•	## H		IOUTP		ISTEPO	-	PTX	
### KSMTHX			2		ITRANS		XTRNT		TRNB		TUNIT		MTA	15
4 KWPITE . LWRITE  COMMON / INTER / XILG90) . ETA(30) . XILG90) . XIN(90) . XIN(90) . XILG90 . ETA(30) . XIRG90 . ETAL(30) . ZUVL . ZRVL .					KSMTHX		KZSWTH		ENDS		CHISWP		3F X	-
LDGICAL  LDGICAL  1					KWPITE		LWRITE					-	X JE	2
COMMON / INTER / X1(90) . ETA(30) . 7T(20) . XIN(90) . XIN(90) . XIL(90) . XIR(90) . ETAL(30) . XMIN . XMAX . MEDIT .	00 15		LOGICA		ISTOP							0	X JE	r.
Table   Tabl	00 16		COMMON	INTER	X1(90)	•	ETA(30)		T(20)		(06)NIX	-	TER	N
2					100) 11X		XICIOUS		10000		FTA! (30)	-	ITER	
3 7CVV 4 POWR(30) EDUM(30) XMIN XMAX 5 YWAX YANX YWAX YMIN YMAX 6 COMMON / FLAGS / 1D15K 15AVE 1PLOT WHINT 1 COMMON / FLAGS / 1D15K 15AVE 1PLOT HEODY 2 EXTWSH 1FINE 1FINE 1CRUDR 3 EXTWSH 1FINE 1FINE 1FOLLT 1 LOGICAL 1D15K 15AVE 1PLOT WENT 1 LOGICAL 1D15K 15AVE 1PLOT WENT 2 EXTWSH 1FINE 1FOLLT 1 LOGICAL 1D15K 15AVE 1PLOT WENT 2 EXTWSH 1FINE 1FOLLT 2 EXTWSH 1FINE 1FOLLT 3 EXTWSH 1FINE 1FOLLT 4 HEODY SOLV WENT 5 INTO  6 EXSO = MACHNO **2  C EMSO = MACHNO **3  C EMSO = M					6166301	• •	FTAP ( 30)		ישטו		COEL		TEB	•
4					20.00		5 5		50		32.5		ITER	
5 YMAX : EDDECAN : WAIN : ZMAX : COMMON / FLAGS / IDTSK : ISAVE : IPLOT : WAIN : ZMAX : COMMON / FLAGS / IDTSK : ISAVE : IPLOT : WASHINT : GOMMON / FLAGS / IDTSK : ISAVE : IPLOT : WASHINT : ISAVE : IPLOT : WASHINT : GOMMON / FLAGS / IDTSK : ISAVE : IPLOT : WASHINT : IFLOG : ITWIST : IFLOLT : WASHINT : GOMMON / GOLV : ISAVE : IPLOT : WASHINT : GOLV : ITWIST : IFLOLT : WASHINT : GOLV :			, .											,
COMMON / FLAGS / 1015K			• •		PO(1 30)	•	EDUM (30)		2.1		XMAX		HE K	0 1
COMMON / FLAGS / IDJSK - ISAVO - IPLOT - MSHINT - SOLV - MGCPPT - BBCPRT - BCDV - SOLV - MBCPRT - ITMAPR - YAW - IBLODT - MSHINT - IBLODT - MSHINT - IBLODT - MSHINT - BCDV - MBCPRT - BBCPRT - BCDV - MSCHINT - BCDV - MBCPRT - BCDV - MSHINT - IBLODT - MSGNING - IBLODT - MSHINT - MSHI			0		XX	•	ZMAX		7		NIW		ובא	-
COMMON / FLAGS / 1015K - 15AVE - 19LUT - MSHINT - 15AVE - 15AVE - 19LUT - MSHINT - 15AVE - 16AVE - 16A			•		Z.W.	•	ZRVU			ă.		-	TED	•
2 FCRUP	2100		COMMON	FLAGS	IDISK	•	ISAVE		PLOT		INIHSH	-	AGS.	~ 1
2					SOLV	•	MECPRI		BORT		AGDA		-A65	*,
3 EXTMSH • REMESH • IMAPR • YAW  4 IBUMP • IVISC • ITWIST • IFOLLT •  5 EDGICAL IDISK • ANISYM • RELOUT  1 SOLV • WECPRT • BECPRT • BODY  2 EXTMSH • IFMR • ICRUPR • YAW  3 EXTMSH • IFMR • ICRUPR • YAW  4 IBUDI  DIMENSION CHOL • AXISYM • AREA • IBLOUT  C EMSO=MACHNO**2  C EMSO=MACHNO***2  C EMSO=MACHNO*****  C EMSO=MACHNO******  C EMSO=MACHNO*****  C EMSO=MACHNO*****  C EMSO=MACHNO*****  C EMSO=MACHNO*****  C EMSO=MACHNO*****  C EMSO=MACHNO****  C EMSO=MACHNO***  C EMSO=MACHNO**  C EMSO=MACHNO**  C EMSO=MACHNO**  C EMSO=MACHNO**  C EMSO=MACHNO**  C EMSO			2		FCR	•	ISPAN		FINE		ICRUDA	-	W L	-
4 IBUMP 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			m		EXTASH		REWE SH		MAPR		YAW	-	IPT X	N
5			•		IBUMP	•	IVISC		TRIST		FOILT	-	PTX	m
LOGICAL IDISK , ISAVE , IPLOT , WSHINT , ISAVE 1			S		TRODIN		AXISAM		IREA		IBLOUT	=	PTX	4
1 SOLV • WBCPRT • BBCPRT • BDDV • FCR • ISPAN • IFINR • ICRUDR • 15 SOLV • WBCPRT • BDDV • 15 SOLV • WBCPRT • BDDV • 15 SOLV • IN SCRIPT • BDDV • 16 SOLV • IN SCRIPT • BDDV • 16 SOLV • IN SCRIPT • I	81 00 1		LOGICAL		IDISK	•	ISAVE		IPLOT		MSHINT	5	MF IN	•
2 FCR , ISPAN , IFINR , ICRUDR , IENTWELL , IENTWELL , IENTWELL , IENTWELL , ITALIST , ITERATION CHANGE SUMMARIES C DO 26 K=KTX*KRX					2017	•	WBCPRT		BCPRT		BODY	ŭ	MF IN	c
3 EXTMSH , PEMESH , IMAPP , VAW , 180MP , IVISC , ITWIST , IFOILT , 180MP , INITIALIZE   ITEMATION CHANGE SUMMARIES			2		FCR	•	ISPAN		FINE		ICRUDA		MF IN	•
### 1800   1800			3		EXTMSH	•	REMESH		IMAPP		YAW		MF BY	1
5 DIMENSION CHUIC) AXISYM AREA IBLOUT CWIN(2) CWIL(2) PU(25) PL(25)  1 COMMON /CPOD/ CPODU(30.50).CPODL(30.50)  KSCHP(X1,X2,Y1,Y2)=X1+(X2-X1)*(1.0-Y1)/(Y2-Y1)  EMSO=MACHNO**2  WSRIDS=1  INITIALIZE ITERATION CHANGE SUMMARIES  DO 26 K=K7X,K8X					IBUMP	•	IVISC		TALIST		IFOILT		MF IV	•
DIMENSION CHUM2) , CWL(2) , PU(25) , PL(25) , CML(2) , PU(25) , PL(25) , CMMON /CPOD/ CPORN(30,50), CPODL(30,50)    C			5		MIGORI	•	AXISYM		IREA		TBLOUT	5	ME !	0
1	00 10		DIMENSI	2	CMINE		CW (2)		20(25)		(25)	2	MF 12	00
COMMON /CPOD/ CPONI(30,50),CPODL(30,50)  C					XOUT (SO)							-	MF 12	
XSOND(X1,X2,Y1,Y2)=X1+(X2-X1)*(1.0-Y1)/(Y2-Y1)  C EMSO=MACHND**2  MGR 1DS=1  C INITIALIZE ITERATION CHANGE SUMMARIES  C DO 26 K=K7X,K8X	0000		COMMUN	Como	CE MININGS	501	CENTIONS.							
C EMSO=MACHND**2  MSRIDS=1  C INITIALIZE ITERATION CHANGE SUMMARIES  C DO 26 K=KTX*K8X	200	,	- CHILD	100.0	100000000000000000000000000000000000000		1000000	2						
C EMSO=MACHNO**2  MGRIDS=1  C INITIALIZE ITERATION CHANGE SUMMARIES  C DO 26 K=K7X*K8X		٠	-			-		-				5 6	1	20
C EMSG=MACHND**2  MGRIDS=1 C C INITIALIZE ITERATION CHANGE SUMMARIES C DO 26 K=K7X *K RX	1200	,	ASUNPLA	• X < • T   • T <	-ZY1+(Y-	X117	(1.0-T1)/	1	-417			5 6	CALC	53
C EMSO=MACHND**2  MGRIDS=1 C C INITIALIZE ITERATION CHANGE SUMMARIES C DO 26 K=K7X*K8X												5	CALC	20
FMSG=MACHNO**2  MGRIDS=1  C  C  INITIALIZE ITERATION CHANGE SUMMARIES  C  DO 26 K=KTX*KRX		U										Č i	CALC	25
MSRIDS=1 C C INITIALIZE ITERATION CHANGE SUMMARIES C DO 26 K=K7X + K RX	0025		EMSO=MA	CHIND**Z								S	RVS	88
C INITIALIZE ITERATION CHANGE SUMMARIES C DO 26 K=KTX *KRX	0053		NGR 10S=	L. SERVICE A								S	TRV S	80
C INITIALIZE ITERATION CHANGE SUMMARIES C DO 26 K=KTX *KRX		U										ט	CALC	0
C INITIALIZE TENATION CHANGE SUMMARIES C DO 26 K=K7X •K8X		0										נ ו	CALC	00
DO 26 K=K7X •K 8X		٠,	INITIAL	IZE ITERAT	TON CHANG	SO	MMARIES					Ü	CALC	
DO 26 KEKTA KRX	1	0										-	CALC	20
	0024		DO 26 K	***								Charles	Annual Contract	

1	* *****	2	CPCALC 05/360 FORTRAN H EXTENDED DA	DATE 77.295/15.
N 100			COMPLIKI)=0-0	Cocascas
THE RES		-	Serbuck)=0.0	CPCALCOS
151 Mars		-	94 PB(X)=0.0	CPCALC67
100 1020		-	0.00	CPCALCOB
15th 10.30		_	DCP#14 (K)=0.0	CPCALC69
1274 96.31			OPHU (K )=0.0	CPCALCTO
15m 0032		•	CPML (K)=0.0	CPCALCTI
15 00 MEI			ODOU(K)=0.0	CPCALC72
15 00 ME			CPOL (K)=0.0	CPCALC73
			JMXL (K)=0.0	CPCALC74
15× 4036			JKXU(K)=0.0	CPCALCTS
18N 0031			AVCHGU(K)=0.0	CPCALC76
15 W 00 38		56	AVCHGL (K)=0.0	CPCALCT
			CPTBAR=0.0	CPCALC79
15N 0040			CP8BAR=0.0	CPCALCO
-			OMAXDT=0.0	CPCALCB2
			OWAXIBE=0.0	CPCALCB3
			EPS1 =0.0	CPCALCBA
			EPS2=0.0	CPCALCRS
		7	F(IVITER. 67-1: OF - MPIDS - 67-1) GO TO 5	CPCALC86
			F C. NOT : FD SK ) GO TO BOO	VSCF X302
154 0049	•	000	PERMITE SE GOING TO 5	VSCF X303
	,			VOCE KOO
			INITIALIZE DEM 16 THIS IS THE EIDST DASS	CPCALCET
ISN 0052	,		90 1 J=1.50	CPCALCRO
1		•	97.	CPLANCON
		The state of	OPU(K,J)=-2.0	CPCARCO
		1	OL(K,J)=-2.0	CPCALC92
	v			CPCALC93
15N 0056		5	CONT INCE	CPCALCO
	v			CPCALCOB
	v		COMPUTE THE CP DISTRIBUTION	CPCALC99
	U			CPCALIBO
15N 0057			LINUP 1=LW1NGU+1	CPCALIBI
		-	רות או = ראו אפר – ו	CPCAL102
		-	DENNU-ZT(LVINGU)-ZT(L®UP1)	CPCAL103
				CPCAL104
			CM(1) = (ZTWING - ZT(LWUP1))/DENMU	CPCAL105
		•	CMU(2) = -iZTWING - ZT(LWINGU))/DENWU	CPCAL106
		_	DENWL=ZT(LWINGL)-ZT(LWLMI)	CPCAL107
		1	CML(1) = (ZTWING - ZT(LWLM1))/DENWL	CPCAL108
15N 0065			CM.(2) = -(ZTWING - ZT(LWINGL))/DENWL	CPCALI09
	0			CPCALITO
	U			CPCALITE
	<b>.</b>	C	COMPUTE CPULLIJIAND CPL(1.3) - PRESSURE DISTRIBUTION ON UPPER	
	٠,		AND LOWER SURFACES - RESPECTIVELY	
		1		CPCALIZI
	, ,		ALSO TOK OFFER AND LOWER SOME ( FOR EACH SPAN STATION )	CPCALIZZ
			COMMUNICORNAL AND COMMUNICATION OF STREET	CPCALIZE
	, ,		COLUMN TO THE PART OF THE PART	CPCALIZA
			CONT. COOL DE CP AT MAX CHANGE	CPCALIZE
	,		8 000	CPCALIZE

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DATE 77.295/15.57.46
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                                          CPCAL129
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                                                                                                         CPCA1399
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                     CPCAL127
                               CPCALIZE
                                                    STRV S398
                                                                          CPCAL136
                                                                                   CPCAL137
                                                                                              CPCAL138
                                                                                                                             STRV S399
                                                                                                                                        CPCAL142
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                                                                                                                                                                      PL(15)=CUL* (PF(L,K,J)-PF(L,K,J-1))+CUR*( PF(L,K,J+1)-PF(L,K,J))
                                                                                                                             PU(IS)=CUL*(PF(L,K,J)-PF(L,K,J-1))+CUR*(PF(L,K,J+1)-PF(L,K,J))
OS/360 FORTRAN H EXTENDED
                     LOCATION OF MAX CHANGE
                                                                                                                                                                                                                                                                    = COE+(CVL(1)+PL(1) + CVL(2)+PL(2))
                                                                                                                                                                                                                           = COE*(CWU(1)*PU(1) + CWU(2)*PU(2))
                                                                                                                                                                                                                                                                              CPODL(K.J3)=CPL(K.J3)
FF(CPLKJ.EQ.0.0) CPLKJ=1.0E-15
                                                                                                                                                                                                                                               IF(CPUKJ.E0.0.0) CPUKJ=1.0E-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUCKOL)=SLU#XI(L1)+YINTU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IF(XI(L1) .61.0.)Gn TO 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COL (K.L)=SL*XI(L1)+YINT
                                                                                                                                                                                                                                     CPODU(K, J3) = CPU(K, J3)
                                                                                                         DO 40 L = LWINGU.LMAX
                                                                                                                                                                                                                FELJ3.GT.NX) GO TO 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F(X2.EQ.X1)G0 TO 23
                                                                                                                                                                                                     JF( J3.LT.1) GO TO 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLU= (Y4-Y3)/(X2-X1)
                                                                                                                                                 DO 45 L = 1, LWINGL
                                                                                                                                                                                           NX= JTE(K)-JLE(K)+1
                                                                                                                                                                                                                                                                                                                                                        NX= JTE(K)-JLE(K)+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SE=(*2-*1)/(X2-X1)
                     JMXU. JMXL-
                                                                                                                                                                                                                                                        CPU(K, J3)=CPUKJ
                                                                                                                                                                                                                                                                                                    CPL(K, J3)=CPLKJ
                                          DO 80 JE2.JMAX1
                                                                                                                                                                                                                                                                                                                                    DO 23 K-K7X .K8X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VINTU=Y4-SLU#X2
                                         80 JEZ.JMAXI
                                                                        CI = .5/COPD(K)
                                                                                    = XIL(3)*CI
                                                                                              = XIR(J)*C1
CPCALC
                                                                                                                                                                                 J3= J-JE(K)+1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FINT=Y2-SL*X2
                                                                                                                                                                                                                                                                                                                                                                  DO 20 L=1 ,NX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DO 22 L=1 .LL
                                                                                                                                        IS = LVINGU
                                                                                                                                                                                                                                                                                                                                             JXLE=JLE(K)
                                                                                                                   15 = 15 + 1
                                                                                                                                                             15 = 15 - 1
                                                                                                                                                                                                                                                                                                                                                                             VI=CPL(K.1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L1=JXLE4-1
                                                                                                                                                                                                                                                                                                                                                                                        V2=CPL(K+L)
                                                                                                                                                                                                                                                                                                                                                                                                   V3=CPU(K.1)
                                                                                                                                                                                                                                                                                                                                                                                                             V4=CPU(K+L)
                                                                                                                                                                                                                                                                                                                                                                                                                        L1= JXLE+L-1
                                                                                                                                                                                                                                                                                                                                                                                                                                   XI=XI(JXLE)
                                                                                                                                                                                                                                                                                                                                                                                                                                             X2=X1(L1)
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6

AVCHGUIK).AVCHGLIK) - AVERAGE PERCENT CHANGE OF CP STATION
DO 70 J=2.JMAXI DO 71 K=K7X.KRX
W=JTE(K)-JLE(K)+1 J3=J-JLE(K)+1 IF(J3-LT-1)GO TO 71
FF ( J3.GT.NX ) GO TO 71 PERDXU=ARS( CRODU(K.J3) -CPU(K.J3) )
EPS1 =EPS1 +ABS(CPU(K+J3)-CP00U(K+J3))
PERD XL=ABS(CPODL(K,J3)-CPL(K,J3)) EPS2=EPS2+ABS(CPL(K,J3)-CPOOL(K,J3))
CPTBAR*CPTBAR+ABS (CPU(K. J3))
COBBAR≈COBBAR+ABS(CPL(K,J3))
CHAXOB=AMAX 1 (CMAXDB, ABS (CPL (K, J3) -CPODL (K, J3) ))
IF ( PERDXU.L T. DCPMXU(K) )60 TO 65
CPOULK )=CPODU(K, J3)
DNU(K)=CPU(K, J3)
DCPWXU(K)=PERDXU
IF (PERDXL .LT.DCPMXL(K))60 TO 67
OPOL (K)=CP0DL (K, J3)
JHXL (K)=J3
DCPMXL(K)=PERDXL
AVCHGL (K)=AVCHGL(K)+PERDXL
CONT INLE
CONTINUE
DO 28 K=K7X •K8X
NX=JTE(K)-JLE(K)+1
AVCHGU(K)=AVCHGU(K)/NX
AVCHULINJ=AVCHULINJ/NX
TEST FUR CONVERGENCE ON CP
XMPTS- NO. OF POINTS ON EACH SURFACE
CORRESPONDENCE OF THE ABSOLUTE VALUE OF CP ON TOP SURFACE
XXII TS=0.
DO 4 K#7X.K8X
NX=JTE(K)-JLE(K)+1
TE (VAM) WHOTE = 24NX

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CONTRACTOR   CON							
SN 0167   CONGRAPES   SN 0168   CONGRAPES   SN 0169   CONGRAPES   SN 0169   CONGRAPES   SN 0169   CONGRAPES   CONGRAPES   SN 0169   CONGRAPES   CONG		8	3	PIBARECPIBARIAMPIS		Creation	
ISN 0168   EPS1=EPS1/EPS1/IS		29	0	PUBLIC CORRECT MINTS		CHCALZOS	
FN 0169   CPS2=EPS2/EPS15		*	-	PS1=EPS1/EPSV1S		CPCAL206	
C DETERMINE THE NUMBER OF SONIC C SONPULKI, SONPLKI, I LAST ACCEL. SURPULKI, SONPLKI, - LAST ACCEL. SURPULKI, SONPLKI, - LAST SHOCK SURPULKI, - LAST SHOCK SURPULK		69	0	PS2=EPS2/EPSV1S		CPCAL207	
C GETERMINE THE NUMBER OF SONIC C HACHAPIK) AND MACHONIK) C SONPULK) SONPL (K) - LAST ACCEL. C SONPULK) SONPL (K) - LAST SHOCK C SHICHLERSX ISN 0173 DG 200 KEXTX KBBL ISN 0174 DG 200 KEXTX KBBL ISN 0175 DG 200 KEXTX KBBL ISN 0176 DG 10 JE1 NX ISN 0177 DG 200 KEXTX KBBL ISN 0177 DG 200 KEXTX KBBL ISN 0178 DG 10 JE1 NX ISN 0189 DG 10 JE1 NX ISN 0180 DG 10 JEN NX ISN 0180 DG		•				CPCAL208	
SONPULK   SONP				THE NAMBER OF	POINTS ON EACH SURFACE	CPCAL209	
SONPU(K)   SONPL(K) - LAST ACCEL				AND MACHONEKS		CPCAL210	
SONPU(K) SMPL(K) - LAST ACCEL  SMEDLEKOX  ISN 0170  C KGBL=KOX  ISN 0173  CD KGBL=KOX  ISN 0173  CD KGBL=KOX  ISN 0175  CD KGBL=KOX  ISN 0175  CD KGCH=KOX  ISN 0180  ISN 0						CPCAL211	
SHEPUIKISHERPLIK  - LAST SHOCK				1-SANDE (K) - 1AST	PAST SONTE ON SURF	CPCAL212	
SN 0170   F(VAV) KOBL=KTX   SN 0171   F(VAV) KOBL=KTX   SN 0173   CD 200 K=KTX.KOBL   SN 0173   CD 200 K=KTX.KOBL   SN 0175   CD 200 K=KTX.KOBL   SN 0185   CD 200 K=KTX.KOBL   SN 0201				1.5 HK (K) = 1 AST	ON SIDE	CPCAL213	
SN 0170   F(YAM) K68L=K7X   ISN 0173   DO 200 K=K7X.K68L     ISN 0173   DO 200 K=K7X.K68L     ISN 0174   NX=JFE(K)-JE(K)+1     ISN 0175   NX=JFE(K)-JE(K)+1     ISN 0175   NX=JFE(K)-JE(K)+1     ISN 0176   ENL=0.001     ISN 0176   ENL=0.001     ISN 0187   ENL=0.001     ISN 0180   ENL=ENSQ=0.5*(GAMM+1.)*(CMP)     ISN 0180   ENL=ENSQ=0.5*(GAMM+1.)*(MACHN)     ISN 0180   ENL=ENSQ=0.5*(GAMM+1.)*(MACHN)     ISN 0180   ENL=ENSQ=0.5*(GAMM+1.)*(MACHN)     ISN 0180   ENL=ENSQ=0.5*(GAMM+1.)*(MACHN)     ISN 0191   ENLE-ENSQ=0.5*(GAMM+1.)*(MACHN)     ISN 0192   ENL=SORT(ENL)     ISN 0193   ENL=SORT(ENL)     ISN 0197   F(EMLP-LT.1.0.)*NND-ENL-GT.1.0)     ISN 0197   F(EMLP-LT.1.0.)*NND-ENL-GT.1.0)     ISN 0209   IF(EMLP-GT.1.0.*NND-ENL-LT.1.0)     ISN 0209   IF(EMLP-GT.1.0.*NND-ENL-LT.1.0)     ISN 0209   IF(EMLP-GT.1.0.*NND-ENL-LT.1.0)     ISN 0210   CONTTINUE     ISN 0211   ENLP-ENL)     ISN 0211   ENLP-ENLP     ISN 0211				Manual Parameter		CDC41214	
SK   0170   C   KBBL = KBX     ISN   0173   DO   200   K = KTX + KBBL     ISN   0174   DO   200   K = KTX + KBBL     ISN   0175   DO   200   K = KTX + KBBL     ISN   0175   DO   200   D = 1 + KT     ISN   0177   ENL = 0 + 0.001     ISN   0177   ENL = 0 + 0.001     ISN   0179   DO   10   D = 1 + KT     ISN   0180   DO   10   D = 1 + KT     ISN   0180   DO   10   D = 1 + KT     ISN   0180   ENL = ENL     ISN   0180   ENL     ISN   0180   ENL     ISN   0180   ENL     ISN   0190   ENL     ISN   0190   ENL     ISN   0190   ENL     ISN   0190   ENL     ISN   0200   EN						CPCALCE	
ISA 0170   KGBL=KFX     ISA 0170   KGBL=KFX     ISA 0173   CO C = CTX * KBBL     ISA 0174   CO C O C = CTX * KBBL     ISA 0175   CO C C C C C C C C C C C C C C C C C						CPCALZES	
ISN 0171   IF(YAW) K08L=KTX   ISN 0172   OC 200 K=KTX-KBBL		2	2	BBL=KBX		STRVSA13	
ISN 0173   C   200 K=KTX*K8BL     ISN 0174   WACHUP(K)=0     ISN 0175   WACHUP(K)=0     ISN 0176   ENU=0.001     ISN 0177   ENU=0.001     ISN 0177   ENU=0.001     ISN 0178   DO 10 J=1.NX     ISN 0179   DO 10 J=1.NX     ISN 0180   DO 60 J=2.NX     ISN 0180   ENL=ENSO-0.5*(GAMMA+1.)*(MACHNO ISN 0180     ISN 0180   ENL=ENSO-0.5*(GAMMA+1.)*(MACHNO ISN 0180     ISN 0180   ENL=ENSO-0.5*(GAMMA+1.)*(MACHNO ISN 0180     ISN 0190   ENL=ENSO-0.5*(GAMMA+1.)*(MACHNO ISN 0180     ISN 0190   ENL=ENSO-0.5*(GAMMA+1.)*(MACHNO ISN 0190     ISN 0190   ENL=0.0AND.ENL.CT.1.0)     ISN 0201   IF(ENLP-ENL.)     ISN 0202   IF(ENLP-ENL.)     ISN 0203   IF(ENLP-ENL.)     ISN 0211   ENLP-ENL.)     ISN 0212   C   CONTINUE     ISN 0212   C   C   C     ISN 0212   C     ISN 0212   ENLP-ENL.)     ISN 0212   C     I		7	=			STRVSAIA	
C NXE-JTE(K)-JLE(K)+1  ISN 0174  ISN 0175  ISN 0175  ISN 0175  ISN 0176  ISN 0176  ISN 0176  ISN 0177  ISN 0179  ISN 0189  ISN 0199  ISN 0209  ISN		73	6	0 200 K=K7X,KBBL		STRVSA15	
ISN 0174   NYE-JTE(K)-JLE(K)+1						CPCAL219	
15N 0175   WACHUP(K) = 0     15N 0176   ENU=0.001     15N 0177   ENU=0.001     15N 0179   ENU=0.001     15N 0179   ENU=0.001     15N 0179   ENU=0.001     15N 0180   ENU=ENSQ=0.5*(GANMA+1.)*(MACHNO     15N 0190   ENU=ENSQ=0.5*(GANMA+1.)*(MACHNO     15N 0190   ENU=ENSQ=0.5*(GANMA+1.)*(MACHNO     15N 0190   ENU=SQRT(ENU.)     15N 0190   ENU=SQRT(ENU.)     15N 0190   ENU=SQRT(ENU.)     15N 0200   ENUEN.ENU.)     15N 0200   ENUEN.ENU.     15N 0200   ENUEN.ENU.)     15N 0200   ENUEN.ENU.     15N 0200   ENUEN.ENU.     15N 0200   ENUEN.ENU.     15N 0200   ENUEN.ENU.     15N 0201   ENUEN.ENU.     15N 020			2			STRVSAT6	
SN 0175   SN 0176   SN 0180   SN 0	. 3		•			CPCA1220	
SN 0170   EWL=0.001     SN 0170   EWL=0.001     SN 0170   EWL=0.001     SN 0170   EWL=0.001     SN 0180   J3=JLE(K)+J-1     SN 0180   I0 MUP=EWL     SN 0180   EML=EWSQ-0.5*(GAMMA+1.)*(MACHNO     SN 0180   EWL=EWSQ-0.5*(GAMMA+1.)*(MACHNO     SN 0180   EWL=EWSQ-0.5*(GAMMA+1.)*(MACHNO     SN 0180   EWL=EWSQ-0.5*(GAMMA+1.)*(MACHNO     SN 0180   FF(EML-EWSQ-0.5*(GAMMA+1.)*(MACHNO     SN 0190   FF(EML-SQRT(EML)     SN 0190   FF(EML-SQRT(EML)     SN 0190   FF(EML-SQRT(EML)     SN 0190   FF(EML-SQRT(EML)     SN 0190   FF(EML-SGRT(EML)     SN 0190   FF(EML-SGRT(EML)     SN 0190   FF(EML-SGRT(EML)     SN 0190   FF(EML-SGRT(EML)     SN 0200   FF(EML-SGRT(EML)     FF(EML-SGRT(EML)     SN 0200   FF(EML-SGRT(EML)     FF(EML-SGRT(EML)     SN 0200   FF(EML-SGRT(EML)     FF(EML-SGRT(EML)     SN 0200   FF(EML-SGRT(EML)     FF		2 %				COCA1221	
SN 0179   SN 1079   SN 1079   SN 1079   SN 0179   SN 0180   SN 0		19				CPCA1222	
ISN 0179 DO 10 J=1.0X  ISN 0180 DO 0 J=2.0X  ISN 0180 DO 60 J=2.0X  ISN 0180 ENUP=ENU  ISN 0180 ENUP=ENU  ISN 0180 ENUP=ENU  ISN 0180 ENUP-ENU  ISN 0180 ENU-ENSO-0.5*(GANNA+1.)*(NACHNO  IENU-ENSO  C FF(EMUP-ENL)  ISN 0200 IF(EMUP-ENL)  IENU-ENL)  ISN 0200 IF(EMUP-ENL)  IENU-ENL)  ISN 0200 IF(EMUP-ENL)  IENU-ENL)  ISN 0201 C FF(EMUP-ENL)  IENU-ENLO  C FF(EMUP-ENLO)  IENU-ENLO  C FF(EMUP-ENLO)  IENU-ENLO  C FF(EMUP-ENLO)  IENU-ENLO  IENU-ENLO  C FF(EMUP-ENLO)  IENU-ENLO  C FF(EMUP-ENLO  C			1 (			500000	
ISN 0159 DO 10 JET (KK + JET)  ISN 0160 10 MOUT (J) = (X(K + JET) + X(K + JET) + X(			1	ME=0-001		CHOKEES	
ISN 0180 10 XDVT(1)=(X(K.J3)-XLEW(K))/CDRDN ISN 0181 10 XDVT(1)=(X(K.J3)-XLEW(K))/CDRDN ISN 0182 EWD=EWD = EWD = E		2	۵	Nº 1=0 OI O		SIRVER	
ISN 0161 10 XXDVT (J)=(X(K + J3)-X(LEW(K))/CDRDN 0163		00	-	3=JLE(K)+J-1		VSCFX 18	
ISN 0162  ISN 0163  EMUP=EMU ISN 0164  EMU=EMSQ-0.5*(GAWMA+1.)*(WACHNO ISN 0165  EMU=EMSQ-0.5*(GAWMA+1.)*(WACHNO ISN 0166  EMU=EMSQ-0.5*(GAWMA+1.)*(WACHNO ISN 0167  ISN 0169  EMU=SQRT(EMU)  ISN 0192  C  IF(EMUP.LT.0.0) EMU-GT.1.0)  ISN 0193  C  IF(EMUP.LT.1.0.AND.FMJ.GT.1.0)  ISN 0197  IF(EMUP.LT.1.0.AND.EML.GT.1.0)  ISN 0203  IF(EMUP.EML)  IF(EMUP.EML)  ISN 0203  IF(EMUP.EML)	Œ.		0.5	DUT(J)=(X(K,J3)-XLEW(K))/CORD)	(K)	VSCFX 19	
ISN 0163   EMUP=ENU     ISN 0164   EMLP=ENU     ISN 0165   EML=ENSQ-0.5 ** (GANMA+1.) ** (MACHNO ISN 0166     ISN 0166   EML=ENSQ-0.5 ** (GANMA+1.) ** (MACHNO ISN 0169     ISN 0167   F* (EML-L** 0.0) EML=0.001     ISN 0193   F* (EMLP-L** 1.00.AND.F* MJ.6T* 1.00     ISN 0193   G		82	6	0 60 JE2 NX		STRV \$419	
ISN 0166   EMLP=EML   EMLP=EML   ISN 0165   EML=EMSQ-0.5*(GAMMA+1.)*(MACPNO   ISN 0166   ISN 0166   ISN 0166   ISN 0166   ISN 0167   IF(EML-LT.0.0) EML=0.001   ISN 0192   EML=SQRT(EML)   EML=SQRT(EML)   ISN 0192   EML=SQRT(EML)   ISN 0193   IF(EMLP-LT.1.0.AND-EML-GT.1.0)   IF(EMLP-LT.1.0.AND-EML-GT.1.0)   IF(EMLP-EML)		28	-	MUP=EMU		CPCA1.225	
ISN 0165   EML=ENSQ-0.5*(GAMMA+1.)*(MACHNO		*	E	M.P. S.M.		CPCAL226	
ISN 0196   FY (EMU-LT-0-0) EMU-0-001		45	9	MU-ENSQ-0.5+(GAMMA+1.)+(MACHNC	14*EMEXP(1)) *CPU(K .J)	STRVSAZO	
ISN 0187   FF(EMU-LT-0-0) EMU-0-001		98		ME -EMSO-0.5+ (GAMMA+1.) + (MACHING	14*EMEXP(1)) *CPL(K.J)	STRVSA21	
ISN 0199 ISN 0192 ISN 0193 ISN 0193 ISN 0193 ISN 0193 ISN 0195 ISN 0195 ISN 0197 ISN 0197 ISN 0197 ISN 0197 ISN 0207 ISN 0209 ISN 0211 ISN			-	EFFMILT O OF FMITO OF		CPCA1229	
SN 0192   ENL=SORT(ENL)     ISN 0192   C				ECENT 1 TO 0 1 FW -0 001		CECALOTO	
ISN 0192  ISN 0192  C				TOTAL CONTRACTOR		COC41031	
ISN 0192  ISN 0193  ISN 0193  ISN 0195  INP-EMP-LT-1-0.AND-FMJ-GT-1-0)  ISN 0195  INP-EMJ-LT-1-0.AND-FMJ-GT-1-0)  ISN 0197  ISN 0197  IF (EMJP-LT-1-0.AND-EMJ-GT-1-0)  IF (EMJP-EML)  IF (EMJP-EML)  ISN 0201  IF (EMJP-EML)  ISN 0203  IF (EMJP-GT-1-0.AND-EMJ-LT-1-0)  IFN 0203  IF (EMJP-GT-1-0.AND-EMJ-LT-1-0)  ISN 0205  IF (EMJP-EML)  C  ISN 0205  IF (EMJP-EML)  C  ISN 0210  C  IF (EMJP-EML)  IF (EMJP-EML)  C  ISN 0211  C  IF (EMJP-EML)  C  IF (EMJP-EML)  IF (EMJP-EML)  C  IFN 0211  C  IFN 021  C  IFN 0211  C  IFN 0211  C  IFN 0211  C  IFN 0211  C  IFN 021  C  IFN		16	וע	MU=SART (EMU)		CPCACSI	
ISN 0193   FFERMPALT.1.0.AND.FRUJ.GT.1.0) ISN 0195   IFFERMPALT.1.0.AND.FRUJ.GT.1.0) ISN 0197   IFFERMPALT.1.0.AND.FRUJ.GT.1.0) ISN 0209   FFERMPALT.1.0.AND.FRL.GT.1.0) ISN 0201   FFERMPAGT.1.0.AND.FRUJ.LT.1.0) ISN 0205   IFFERMPAGT.1.0.AND.FRUJ.LT.1.0) ISN 0205   IFFERMPAGT.1.0.AND.FRUJ.LT.1.0) ISN 0207   IFFERMPAGT.1.0.AND.FRUJ.LT.1.0) ISN 0210   CONTINUE ISN 0211   FRETURN			W.			CPCA1232	
ISN 0193   IF (EMLP-LT-1-0-AND-FMJ-GT-1-0)						CPCAL233	
ISN 0195 IFF(EMLP-LT-1-0-AND-EML-GT-1-0) ISN 0197 IFF(EMLP-LT-1-0-AND-EML-GT-1-0) ISN 0199 IFF(EMLP-LT-1-0-AND-EML-GT-1-0) ISN 0201 IFMLP-EML) ISN 0203 IFF(EMLP-GT-1-0-AND-EML-LT-1-0) ISN 0205 IFF(EMLP-GT-1-0-AND-EML-LT-1-0) ISN 0205 IFF(EMLP-GT-1-0-AND-EML-LT-1-0) ISN 0207 IFF(EMLP-GT-1-0-AND-EML-LT-1-0) ISN 0207 IFF(EMLP-GT-1-0-AND-EML-LT-1-0) ISN 0209 GO CONTINUE ISN 0211 FRETURN ISN 0212 FRETURN	ISN	93	-	F(EMUP-LT-1-0-AND-FMJ-GT-1-0)	MACHIP(K)=MACHIP(K)+1	CPCAL234	
1097 110 - 100 - 1	ISN	8	-	FEEMUP.LT.1.0.AND.EMJ.GT.1.0)	SONPU(K)=XSONP(XOUT(J-1), XOUT(J),E	MCPCAL235 .	
1 F(EMLP-LT-1-0.AND-EML-6T-1-0) MACHDN(K)=MACHDN(K)+1 0199 1 FF(EMLP-LT-1-0.AND-EML-6T-1-0) SGNPL(K)=XSONP(XDUT(J)-1). 1 EMLP-EML) 0201 1 FF(EMLP-GT-1-0.AND-EMJ-LT-1-0) MACHDP(K)=MACHDP(K)+1 0203 1 FF(EMLP-GT-1-0.AND-EMJ-LT-1-0) SHKPU(K)=XSONP(XDUT(J)-1). 1 EMUP-EML) 0205 1 FF(EMLP-GT-1-0.AND-EML-LT-1-0) SHKPU(K)=MACHDN(K)+1 0207 1 FF(EMLP-GT-1-0.AND-EML-LT-1-0) SHKPU(K)=XSONP(XDUT(J)-1). 0209 0209 0200 0200 0200 0211 0200 0211 0200 0211			2	P,EMU)		CPCAL236	
EMLP-EML    C		16	-	F(EMLP-LT-1-0-AND-EML-GT-1-0)	MACHDN(K)=MACHDN(K)+1	CPCAL237	
1 EMLP-EML)  C		8	-	FIEMEP.LT. 1.0. AND.EM. GT. 1.0)	SOMPL (K)=XSONP(XOUT (J-1), XOUT (J),	CPCA1238	
C IF(EMUP-GT-1-0-AND-EMJ-LT-1-0) MACHUP(K)=MACHUP(K)+1 0203			-	EMD, EML)		CPCAL239	
0201   FFEMUP-GT-1-0-AND-EMU-LT-1-0)   MACHUP(K)=MACHUP(K)+1 0203   JFEMUP-GT-1-0-AND-EMU-LT-1-0)   SHKPU(K)=XSONP(XOUT(J-1)-XOUT(J)- 1 EMUP-EML) 0205   JFEMUP-GT-1-0-AND-EML-LT-1-0)   MACHDN(K)=MACHDN(K)+1 0207   JFEMUP-GT-1-0-AND-EML-LT-1-0)   SHKPB(K)=XSONP(XOUT(J-1)-XOUT(J)- 1 EMLP-EML)  C		0		THE RESIDENCE OF THE PROPERTY		CPCALZOO	
1 EMUP-6T-1.0.AND-FMJ-LT-1.0) SHKPU(K)=XSONP(XGIT(J-1),XOUT(J)). 1 EMUP-EMJ) 0205 IF(EMLP-6T-1.0.AND-EML-LT-1.0) MACHDN(K)=MACHDN(K)+1 0207 IF(EMLP-6T-1.0.AND-EML-LT-1.0) SHKPB(K)=XSONP(XOUT(J-1),XOUT(J)). 1 EMLP-EML) C 0209 60 CONTINUE C 0210 C 0211 RETURN 0212 END			-	F(EMUP.GT-1-0-AND.EMU-LT-1-0)	MACHUP(K)=MACHUP(K)+1	CPCAL241	
1 EMUP.EM.)  10205 IF(EMLP.GT.1.0.AND.EML.LT.1.0) MACHDN(K)=MACHDN(K)+1  10207 IF(EMLP.GT.1.0.AND.EML.LT.1.0) SHKPB(K)=XSONP(XOUT(J-1).XOUT(J).  1 EMLP.EML.)  C  0200 CONTINUE  C  0211 RETURN  0212 END		20		ELFMIDAGTA 1 a DA AND SFINISH TA 1 a 0	SHKPU(K)=XSONP(XONT (J-1), XOUT(J).	CPCA1262	
0205 IF(EMLP-GT-1.0.AND-EML-LT-1.0) MACHDN(K)=MACHDN(K)+1 0207 IF(EMLP-GT-1.0.AND-EML-LT-1.0) SHKPB(K)=XSONP(XOUT(J-1).XOUT(J).  1 EMLP-EML)  C 0209 60 CONTINUE 0210 200 CONTINUE C 0211 RETURN 0212 END				FM(P) FM()		CPCA1243	
1 EMLP-EML)  C 60 CDNT INUE  0210 C 60 CDNT INUE  0211 RETURN  C 70212 END				10 11 10 11 0 11 10 11	NACOUNTY OF THE PASSAGE AND	COC41244	
1 EMLP-EML!  C 60 CDNT INUE  0210 200 CDNT INUE  C 7 C 60 CDNT INUE  0211 RETURN  0212 END		88	•	THE MENT OF THE PARTY OF THE PA	CHECOS (K 1- XCOMO) YOUT ( 1-1 ) YOUT ( 1)	CPCALCAN	
0209 60 CONTINUE 0210 200 CONTINUE 0211 FETURA				FIET STORES TO SOUND SENTEN TO 100 J	SHAPER J-ASCINE ALOU (3-1 ) AND (3)	CPCALCES	
0209 60 CONTINUE 0210 200 CONTINUE C C CONTINUE 0211 RETURN 0212 END			-	EMLP.EML!		CPCALZED	
0209 60 CDNT INUE 0210 C CONT INUE 0211 RETURN 0212 END		U				CPCALZAT	
0210 200 CDN TIMUE C C RETURN 0211 RETURN			0	DNT INCE		CPCAL248	
0211 RETURN 0212 END				DNTIME		CPCAL249	
0211 RETURN 0212 END						CPCAL250	
0212 END	15N 02		Œ	ETURN		CPCAL251	
	15N 02	12	-	9		CPCAL252	

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DATE 77.295/15-57-46

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(I) DUMP

211. PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

SOURCE STATEMENTS =

\*STATISTICS\*

108K BYTES OF CORE NOT USED

4366. SUBPROGRAM NAME =CPCALC

DATE 77.295/15.59.00

REQUESTED OPTIONS OPT(2) . NOMAP	OPT(2) .NOMAP								
OPTIONS IN EFFECT	NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF	2) LINECOU	UT ( SE ) SIZE (	MAX) AUTODB OFORMAT GOS		Ş	YDANSF TER	ALC NDANSF TERM FLAG(I) DUMP	1
ISN 0002	SUBROUTINE CLCALC(CLG)	(0.0)					STRV SA22		
, ,	COMPUTE THE LIFT		COFFICIENT BY INTEGRATING DELTA PHI	TING DELTA	PHI AT TE		CLCALC 4		
•							CLCALC S		
0	, detre		5751301	10072	100		CLCALC 6		
Suon NEI	COMMON / INTER /	x12 (90)	x17(90)	1001ALX	TAIN (30)	• •	INTER		
	٠ ٨	ETAC (30)	. ETAR(30)	· COEU	. COEL	• •	INTER 4		
	· P	ZCWU	. A.M.	. ZRM	· ZCVL	•	INTER 5		
	•	PDUM (30)	. EDUM(30)	NIMX .	. XMAX	•	INTER 6		
	w.	YMAX	· ZMAX	NIMA .	NIMZ .	•	INTER 7		
	9	27.00	. ZRWJ		-		INTER 8		
15N 0004	AMOY / NOWWOO	2	, kg	• BZU	· BZL	•	JUMP 2		
	- 0	P. N. W. P. 70.90	7.6	- PCDEE(30.00)	100	•	COMP IXIA		
	u M	KP INDX (30.90)	.00	. P.H.MPX (20.30)	10.30	•	COME TX16		
15N 0005	COMMON / FLAGS /	TOTSK	. ISAVE	• IPLOT	. MSHINT	•	FLAGS 2		
		SOLV	. WBCPRT	. BBCPRT	· BODY	•	FLAGS 3		
	~	FCR	. ISPAN	. IF INR	. ICRUDR	•	INPTX 1		
	n	EXTMSH	. REWESH	. IMAPP	. YAW	•	PNPTX 2		
	•	IBUMP	· IVISC	. ITMIST	. IFOILT	•	INPTX 3		
	<b>.</b>	1800 IN	. AXISYM	. AREA	. IBLOUT		INPTX 4		
1SN 0006	LOGICAL	TOTSK	. ISAVE	. IPLOT	. MSHINT	•	COMF IX 4		
	- (	SOLV	• WBCPRT	. BBCPRT	. BOOY	•	COMP IX 5		
	N 1	FOR	. ISPAN	. IFINE	. ICRUDA	•	COMF IX 6		
	•	EXTMSH	* REMESH	MAPR	· YAW	•	COMF IX 7		
	• •	I BOOL	· IVISC	· ITVIST	· FOLL	•	COMPTX 8		
15N 0007	A SULLA / MUNICIPAL /	VECTOR	* XI FD	. AREA	· recoor		WING 2		
	1	XET	. XTET	• SREF	SWEEP	• •	INPTX 7		
	N	NEI	. MET(10)	. XLE1(10)	. STRUE	•	INPTX 8		
77	n	NTEI	. YTE1(10)	. XTE1(10)		•	INPTX 9		
,	• •	CROOT	· SSPAN	· THICK(11)	•	•	INPTX 10		
	0 4	NEAN		· THETP(11)	•	•	ATREDILS		
	4 0	7F(180-11)		TALK THE	. W E ( 30 )	:	MINE		
	•	XLEW(30)				. :	WING 10		
	•	XTE(30)	. RFACT	. CMEAN		•	WING 11		
	•	NSO	. NS1	. KX0(12)	. KX1(12)	•	ATRFOTLA		
	c	NX0(12)			. (0		AIRFOIL9		
	U	XX0(12,10)		1. DXR0(12)	. DXR1(12)	•	ATPFOLLO		
	٥	DXT0(12)	• DXT1(12)	•	•	•	AIRFOIL!		
	£	NTIPXI	. XLEWX (30)			•	CHORD 1		
	L	CAV	• XOK •	. XLEWP(30)	) . XTEWP (30)	•	VSCFX3 1		
SATTLE BALLET IN HIS		KSWICH					VSCF X3 2		
15N 0008	COMMON / INDEX /	JMAX	· KMAX	· LMAX	· KTM1	•	INDEX 2		
	THE RESERVE AND THE PARTY	AL LA	. KTIPI	· JWLE	. JE(30)	•	INDEX 3		
	N	MIE	. JTE(30)	. LWING	. LWINGU	•	INDEX 4		

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DATE 77.295/15.59.00	
60 FORTRAN H EXTENDED	
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SEPT 76) CLCAL	
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LEVEL 2.2 (	(SEPT 76)	מרכארכ	08/36	OS/360 FORTRAN H EXTENDED	H EXTENDED		DATE 77.295/15.59.00
			JMAX1 .	. KMAX1	. LMAX1	. KROOT	. COMF IX 1
							INDEX 6
15N 0009		COMMON / PARM /		A2	. A3	* .	. PARM 2
			AS .	GAMMA	. MACHIN	• 00E	. PARM 3
				EMEXP(2)	. CK1(30)	. CK2(30)	. PARM .
			CK3(30)	CK4(30)	· CK51(30)		. COMF TX10
			CK 52 (30,90)		· CKIX(30)	. CK2X(30)	. COMPIXED
	•		BLOL .	WCDE			
1SN 0010		REAL	MACHIND				COMP IX13
ISN 0011		COMMON / YAWOPT /	KIX .	K2X	. K3X	. K4X	. COMF TXR7
			KSX .	Kex	. K7X	. K8X	. COMP TXBB
		<b>A</b>	KP1X	KMIX			COMP 1X89
15N 00 12		DIMENSION ETATE (30), PUTE (30)	0) PUTE (30)				STRVSA31
ISN 0013		DO 10 K=KR00T .KTM1	-				STPV SA 32
		J=JTE(K)					STRVSA33
		PUTE (K)=PJUMP (K,J)	•				STRVSA34
		EDUM (K)=ETA(K)					VSCFX337
	10	ETATE(K)=ETA(K)/SSPAN	SPAN				STRV SA35
15N 0018		PJTE (KTIP)=0.0					STRVSA36
1SN 0019		CTATE (KT1P)=1.0					STRVSA3T
		EDUM (KTIP)=SSPAN					VSCFX338
15N 0021		IF(YAW)CLG=-CDE+0.5*(PJTE(3)+PJTE(4)	.5*(PJTE(3)+	P.JTE(4))			STRVS438
		IF (YAW) RETURN					CLCALC39
	U						CLCALCAO
1SN 0025		KTIP IN=KTIP					CLCALCA1
		KT IP IN=KT IP -KROOT+1					STRV SA39
		1F((1.0-ETATE(KTM1)) -LT.0.0001)KTIPIN=KTM1-KROOT+1	1)) -LT-0-000	1 )KTIPIN=KI	MI-KROOT+1		STRV SAAO
	30	CALL SIMP(XLOAD, EDUM(KROOT), PJTE(KROOT), KT IP IN, IERR)	DUM(KROOT) ,P	JTE (KROOT)	KT IP IN . IERR	•	VSCFX339
ISN 0030		IF( IERR.NE.1) WRITE(6,100)	TE(6.100)				CLCALCA
		CLG=-COE *XLOAD/(CAV#SSPAN)	AV*SSPAN)				VSCFX340
		RETURN					CLCALCA6
	100	FORMATI/34H ERROR IN SIMP		CALLED FROM CLCALC	CONTC V		VISCF190
		FNO					CLCALC+8

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

34. PROGRAM SIZE = SOURCE STATEMENTS = \*STATISTICS\*

#STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

156K BYTES OF COPE NOT USED

984, SUBPROGRAM NAME =CLCALC

DATE 77.295/15.59.05

LEVEL 2.2 (SEPT 76)

REQUESTED OPTIONS OPTERS NOMAP

DOM 1100

TIONS IN EFFECT	NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOPBL(NONE) SOURCE EBCDIC NOLIST NOGECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF	NODECK OBJE	(55) SIZE(M)	TOPMAT GOST		ALC NOANSF TERM FLAG(1) D
ISN 0002 C	SUBROUTINE BAVITZ	**********	*****			BAV172 2 BAV172 3
U						BAVITZ 4
Ů <b>L</b>	C**** TREATMENT OF LOWER SURFACE SEPARA	PAIR C. BA	SURFACE SEPARATION ZONE USING METHODS	TE USTNG ME	THODS	BAVITZ 5
, 0						BAVITZ 9
ū	C*************************************	**********	*********	**********	:	8AV17210
15N 0003		AVCHGU (30),	AVCHGL (30).	DCPMXU(30).		COMF TX75
		CPNE (30) .	CPOL (30)	, JMXL (30)	. CPNU(30) .	COMF 1X76
	2	CPON(30)	EPS1	EPS2		COMF 9X77
	3	CMAXDB .	CPTBAR	SONPU(30)	•	COMF DY 78
	• •	MACHUP (30).		SHKPU(30)		COMP TX70
	0	FINSO	NGPTOS	G-0(30-20)	1. OLL(30.50).	COME TXR 1
ISN 0004	COMMON / VITERP /	XQUTOD (80).		DXLSTU(30,50)	. 609	COMF IXES
		DXLSTL(30,50)	6)	KTWOLF	. NOXOLD	COMF 1X84
	N	K70LD .	KBOLD			COMF IX85
ISN 0005	COMMON / XYCOE /	x(30,90) .	XIY(30,90).			COMF 1X18
	-	(06.0E)LAIX		, XX(30)	•	COMF 1X19
	~	XINK (30.90)				COMF 1X20
1SN 0006	COMMON / VSFCOM /	RCLBL .	EXTNOU	EXTINDL	. AFCBL1 .	COMF TX90
	-	AFCBL2 ,	K1	, ко		COMF TX91
1SN 0007	COMMON / WINGBC /	AM.	ZRWU	TWIST(30)	•	COMF TX42
	-	WBCL (30,90)		, WBCU(30,90)	(0	COMF TXe3
1SN 0008	-	WBCUDR (30,90)	0)	, WBCLOR(30,90)	106.	COMF 1107
1SN 0009	COMMON / INDEX /	JMAX .	KMAX	LMAX	. KTM1 .	INDEX 2
	-	KTIP .	KT1P1	, JWLE	. JEE(30) .	INDEX 3
	~	JWTE .	JTE(30)	LWINGL	. LWINGU .	TNDEX 4
	m	JMAX1 .	KMAX1	LMAX1	. KP00T .	COMF TX 1
		191				INDEX 6
15N 0010	COMMON / PARM /	•	A2	, A3	. **	PARM 2
	-	. SA	GAMMA	MACHIND .	• COE	PARM 3
	2		EMEXP(2)	CK1(30)	· CK2(30) ·	PARM A
	3	CK3(30)	CK4(30)	CK51(30)		COMF TX10
	•	CK52(30,90)		CK1X(30)	· CK2X(30) .	COMF TX 11
		HLDL.	WC DE			COMF IXI2
150 NSI		MACHNO				COMP IX 13
15N 0012	COMMINS / WING /	· LOOL	XER	, XTER	· WIP	MING
	1	XLET .	XTET	SREF	· SWEEP	INDIX 7
	N I	MET.	M.E.1(10)	xLE1(10)	. STRUE .	INPTX 8
	m ·	MTEI .	VIET(10)	xTE1(10)	· SXPOS ·	INDTX 9
	The second section of the second section is	CROOL	SSPAN	THICK(11)	. ZWNGWL .	INDIX 10
	'n	MOAN	(111)	THETP(11)	. NTWST .	ATREOTES
	•	YTWST(111) .	INUX(11)	INCX (11)	· NF(180.11).	AIRFOILS
		ZF (180 . 11).	KSMTHS(11)	MOMX	. XLE(30) .	INDIX 11
	æ (	XI.EW(30)	CORD(30)	CORDW(30)	· CORDIN(11).	
	•	XTE(30)	HF ACT	CMEAN	. XTEW(30) .	WING 11
		NSO .	NS1	. KX0(12)	. KX1(12) .	AIRFOILS

	•	NX0(12)	NX1(12) .	TXO( 12 . 10).	VX1(12,10).	AIRFOILS
	v	xx0(12.10).	xx1(12,10).	DXR0(12) .	DXR1(12) .	AIRFOTTO
	•	DXT0(12) .	DXT1(12) .	ALPHAN .	MTIPLE .	ATRF 0111
	CANTA CON TON OST PERSON	MTIPX!	X_EWX(30) .	XTEWX(30) .	CORDX .	CHORD 1
	u	CAV	. AOX	XLEWP(30) .	XTEWP(30) .	VSCFX3 1
	ST. PARTY CONT. ST. CO.	KSWICH				VSCF X3 2
ISN 0013	COMMON / YAWOOT /	KIX .	K2X	кзх .	K4X .	COMF 1X87
		KSX .	. хэх	K7X .	KBX .	COMF IX88
	The State of the S	KP1X .	KMIX			COMF 1X89
ISN 0014	COMMON / LARGN /	PF (20,30,90)	•	DJK1 (30,90)	•	COMF TX45
	THE PURPLE STATE OF THE PARTY O	DJK2(30,90)	(1) 10 mm 1	DJK3(30,90)	er monden in	COMF IXA6
	2 Seventhe per parent	DJK4 (30,90)	•	DJKS (30 +90)	•	COMF 1X47
		DJK6 (30,90)		DJK7(30,90)	•	COMF 1X48
	A Distance Reporter	DJK8(30,90)	•	DJK9(30,90)	•	COMF 1X49
		DJK10(30,90)	•	DJK11(30,90)		COMF 1X50
15N 0015	COMMON / INTER /	. (06) IX		27 (20)	. (06)NIX	INTER 2
		XIE(90) .	xIC(90) .	XIR(90) .	ETAL(30) .	INTER 3
	2	ETAC(30) ,	ETAR(30) .	coev .	ODEL .	INTER 4
	3 of the later of	zcw.	עער .	ZRVL .	בער .	INTER 5
	# 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PDUM(30) .	EDUM(30) .	. NIMX	XMAX .	INTER 6
	5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	YMAX .	ZMAX .	· NIMA	. NIMZ	INTER 7
	OF CHAPTER STREET	Z.W.	ZHVU			INTER 8
1SN 0016	COMMON / SZC /	SZT .	FILKLU .	ICARD		COMF 1114
ISN 0017	LOGICAL	FILKLU				COMF 1115
ISN 0018	COMMON / SZT /	x0UT(50) .	*	SEPL (30) .	KBBL .	18M 3
	The second second second second	ZSLP0G(30),	ZSLPTE (30).	XF 1LOG .	SEPMIN .	COMF 1117
	S TOWNS THE STATE OF	DODSEL( 30 .60	-			COMF 1118
15N 0019	COMMON / BAVCOM /		DELSTL(50). CPL2(50)	CPL2(50) .	DST(50)	COMF 1120
		ST(50)				COMF 1121
1SN 0020	DIMENSION YSEP(4), CP(4), DST2(50), ST2(50), XQUT2(50), XSEP2(4),	.CP(4).DST2(	50) ST2(50)	KOUT2 (50) ,XSI	EP2(4).	STRVSAST
	10EL ST2(50) *CPL22(50)	201				STRVS458
ISN 0021	K7=K7X					STRVS459
ISN 0022	JF(LWRITE.NE.0)GO TO 100	TO 100				VSCF X341
	WRITE(6,54)					VSCFX275
ISN 0025	54 FURMAT(1H1.28H MODIFTED WBCL	DIFTED WBCL	AT SEPARATION)	-		VSCF X276
ISN 0026	100 CONTINUE					VSCFX342
15N 0027	DO 10 K=K7.K8BL					BAVI 1748
15N 0028	JF (SEPL(K).6T96)G0 T0	) GO TO 10				STRVS460
ISN 0030	1F(SEPL(K).LT50)WRITE(6.60)K	) WRITE (6,60)	*			VSCF X 20
ISN 0032	60 FURMAT(2X,15HAT SPAN STATION,14,3X,53HLOWER SURFACE	PAN STATION.	14.3X.53HLDW		SEPARATION OCCUSOFX	CVSCFX 21
	IURS AT X/C LESS THAN 0.50/2X,66HBAVITZ TREATMENT IS	HAN 0.50/2X.	66HBAVITZ TRI	EATMENT IS NO	NOT USED AND DVSCFX	OVSCFX 22
	2RIGINAL BOUNDARY CONDITIONS HOLD)	CONDITIONS H	סרס)			VSCFX 23
ISN 0033	IF(SEPL(K).LT50)GO TO 10	) GO TO 10				VSCFX 24
	XSEP(1)=SEPL(K)-0.10	•10				STRVSA61
	XSEP(2)=SEPL(K)-0.08	-08				STRVSA62
	KSEP(3)=(1.0-SEPL(K))/2.+SEPL(K)	(K) 1/2.+SEPL	(K)			STRVS463
ISN 0038	XSEP (4)=1.00					BAV1 1753
ISN 0039	NX=JTE(K)-JLE(K)+1	-				STRVSA64
ISN 0040	MX2=NX					STRVS465
	No 12 J=1 NX					BAV1 7754
	J3=JE(K)+J-1					
ISN 0043	XOUT (J)=(X(K,J3)-XLEW(K))/CORDW(K)	KLEW(K)) /COR	DW(K)			VSCFX 26
	XOUT2(J)=XOUT(J)					

•

	(PL22(J)=OPL(K,J) 12 CONTINUE JB=-1	STRVS469 STRVS470 BAVI 1756
		STRV SA70 RAVI 1756
	- PE1	RAVI 1756
		20001 1440
	DO 20 J=1.NX	BAV 17257
	JF(xQUT(J).LT.XSEP(1)) GO TO 20	BAV 1 7258
	JB=1	BAV11259
	JF (JB.67.0) GO TO 30	BAV1 1260
_	20 CONTINUE	BAV17261
	30 CONT INLE	BAV 1 7262
ISN 0057	JB=JB-1	BAV17763
15N 0058	DO 21 J=1 *NX	BAV1 7264
15N 0059	DELSTL(J)=DxLSTL(K,J)	BAV1 7265
	DELST2(J)=DELSTL(J)	STRVSA71
-	JF(XOUT(J).LT.SEPL(K))GO TO 21	STRV S472
ISN 0063	ACL ALL NOT THE PARTY CONTRACTOR OF THE PARTY OF THE PART	BAV17267
15N 0064	JF(JC.6T-0.) GD TO 31	BAV 1 7268
1SN 0066	21 CONTINUE	8AV1 TZ69
15N 0067	31 CONTINUE	BAVITZTO
15N 0068	00 S 1=1.◆	STRV SA 73
15N 0069	XSEP2(J)=XSEP(J)	STRVSA74
15N 0070	S CONTINUE STATE OF THE STATE O	STRVSATS
15N 0071	JC=JC=1	BAV1 7271
	CALL VINTER (CP.XSEP2.1.4.CPL22.XQUT2.1.NX2.4.0)	STRVSA76
	CALL VINTER (YSEP , XSEP2, 1, 2, DEL ST2, XOUT 2, 1, JC, 4, 0)	STRVSATT
-	•	VSCF X343
-	VSEP(4)=(YSEP(1)+YSEP(3))/2.0	BAVI 1275
	CALL VINTER (DST2,XQUT2,JB,NX2,YSEP,XSEP2,1,4,4,1)	STRVSATA
	CALL VINTER (ST2.XOUT2.JR.NX2.Y SEP.XSEP2.1.4.4.0)	STRVSA79
2	FFILWRITE NE DOGO TO SOOO	VSCFX344
	WR! TE (6-55)	BAVI 72.78
-	S000 CONT INUE	VSCF X345
SE.	00 40 JE JB NX	BAV! 1279
ISN	nST2[J]=RELBL.*DST2(J)+(1.0-RELBL)*DDDSL(K,J)	BAV I 7281
15N 0084	WBCL(K,J)=WBCLOR(K,J)-COEL+WCOE+DST2(J)	VSCF X346
O ISN 0085	DXL STL(K.J)=ST2(J)	VSCF X347
1SN 0086	MDOSE(K, J)=DST2(J)	BAVI 1783
1SN 0087	IFILWRITE.NE.0160 TO 101	VSCF X348
1SN 0089	WRITE(6+50) K +J+XQUT2(J) +DST2(J) +DDDSL(K+J) +WBCL(K+J) +WBCLQR+VSCFX277	BCLOP VSCF X277
	1(K.J)	VSCF X278
1	101 CONTINUE	VSCFX349
	40 CONTINUE	BAV1 7284
	10 CONTINUE	BAV1 T287
	RETURN	BAV17288
	50 FDRMAT(2110.7F10.5)	VSCF X279
1SN 0095	55 FORMAT( //8x . 1HK, 9X , 2H J, 5X , 4HXQJT, 6X , 4HDST2, 7X , 3HST2, 5X, 5HDDDSL ,	SL. VSCF X280
	-	VSCF X281
	57 FDRMAT(110,3E10,3)	BAVI 1792
15N 0097	QC.	BAV 1 7293

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

3162. SUBPROGRAM NAME =BAVITZ 05/360 FORTRAN H EXTENDED 96. PROGRAM SIZE = \*STATISTICS\* NO DIAGNOSTICS GENERATED BAVITZ SOURCE STATEMENTS = \*\*\*\*\* END OF COMPILATION \*\*\*\*\* LEWEL 2.2 (SEPT 76) STATISTICS\*

140K BYTES OF CORE NOT USED

PAGE

DATE 77-295/15-59-05

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## REQUESTED OPTIONS OPT(2) , NOMAP

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(ATM) OPTIMIZE(2) LINECOUNT(56) SIZE(MAX) AUTOOBL(NONE	E EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GPSTWT NOXREF ALC NOANSF TERM FLAG(I) DUMP
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SUBROUTINE VINTER(FN.X.KO.KMAX.VF.S.10.1MAX.LF.1DER)  K=KO  LF12=LF/2  5 I=10-1  10 I=1+1  IF(XKK).cE.S(I).AND.X(K).cT.S(I+1)) GO TO 12  IF(XKK).cE.S(I).AND.X(K).cT.S(I+1)) GO TO 14  GO TO 10  12 I=10  GO TO 20  13 I=1MAX.cF+1  GO TO 20  14 I=1-LF/2+1  20 FN(K)=0.  22 L=1-1  25 L=1-1  26 L=1-1  27 N=N+1  Pal-1  Pal-

MOPTIONS IN EFFECT MAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL (NONE)

\*STATISTICS \* SOURCE STATEMENTS = 47

= 47. PROGRAM SIZE = 1042. SUBPROGRAM NAME =VINTER

\*STATISTICS\* NO DIAGNOSTICS GENERATED

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LEWEL 2.2 (SEPT 76)

REQUESTED OPTIONS OPT(2) NOMAP

NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBBL(NONE) SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP OPTIONS IN EFFECT

BEND 2 REND 3 CAUNCTION BEND 4	* XTER , VIIP , WING 2	. SREF . SWEEP . INPTX 7	. XLEI(10) . STRUE . INPTX 8	. XTEI(10) . SXPOS . INPTX 9	. THICK(11) . ZWNGWL . INPTX 10	. THETP(11) . NTWST . AIRFOILS	. TNIX(11) . XF(180-11).	WIND THE STATE OF	THE THE STATE OF T	CORDW(30) CORDINCILL	. XTEW(30) .	• KX0(12) • KX1(12) •	. YXO(12.10). YX1(12.10).	. DXPO(12) . DXR1(12) .	. ALPHAM . NTIPLE .	. XTEWX(30) . CORDX .	. XLEWP(30) . XTEWP(30) . VSCFX3 1	VSCFX3 2	. KTM1 .	. JE(30) .	L . LWINGU .	. LMAXI . KROOT . COMFIX 1		. (06)NIX .	. XIR(90) . ETAL(30) .	• COEU • COEL •	. ZRVL . ZCVL .	. XMIN . XMAX	. TMIN . ZMIN . INTER 7	1	• NBIN(2) • XBIN(2,35), 800V 2	9,000	MEK(151	(15) · PFL(15)	. CBL(15)	. BTYPE	. DZRBU(90) . DZRBL(90) .	YBB . ZBBU	. JNOSEX . JTAILX	. XTAILX . YOR	3) • FZ(30,90) . COMF 1X23	
BENDING AT # ING-BODY JUNCTION	VROOT , XLER	•	NEE! . YEE1(10)	NTE! . YTEI(10)	CROOT . SSPAN	NPAN . YP(11)					30)	•		.10	2) .	. Ix	CAV . XOR	KSWICH	•	•	•	JMAXI . KMAXI		•	•	130)	•	. (08)			XNOSE . XTAIL	•	. (00			ACL(2) . BCL(2)	. ((	•	ZPRL , KBWXX(30)	RBIN(2,35). XNOSEX	FX (30.90) . FY (30.90)	
SUBROUTINE BEND C******* SETUP FOR MESH	COMMON / WING /		N	n	•	v	•			<b>1</b> 0 (	•	•	•	U	٥	w		٠	COMMON / INDEX /		2	n	•	COMMON / INTER /	-	2	m ·	4 (	•		COMMON / BODAL	- 0	ı M	•	. 10	•			•	4	COMMON / BODY2 /	
ISN 0002	ISN 0003																		1SN 0004					15N 0005							15N 0006										15N 0007	

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GRUMMAN AEROSPACE CORP BETHPAGE N Y
AN AUTOMATED PROCEDURE FOR COMPUTING THE THREE-DIMENSIONAL TRAN--ETC(U)
FEB 78 W H MASON, D MACKENZIE, M STERN F33615-75-C-3073 AD-A055 109 UNCLASSIFIED AFFDL-TR-77-122 NL 4 oF 9 AD A055 109 C - Ningle

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DATE 77.295/15.59.29
                                    COMF 1X29
                                             COMP 1X30
                                                                COMF 1X32
                                                                         COMP IX33
                                                                                 COMF 1X34
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                                                      COMP 1X31
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BNDF X
BNDF X
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                                                                                . ETABU(10)
                                                                                         XRBS(100)
                                                                                                                                                                                                                                                                                                                                                                                        XX0(2,3) = FLIN(XLEI(IR), XLEI(II), YX0(2,3), YLEI(IR), YLEI(II))
                                                                . DRBCLX
                          · LEBU
                                                                                                                                                                                                                                                                                                                                                                                                                             XX0 (2,2) = (XX0 (2,1)+XX0 (2,3)) /2.+ (DXR0 (2) -DXT0 (2))+DY /3.
                                                     RBCL X (20 ,30 )
                                    . RBCU(30,90)
OS/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                           DXT0(2) = (XLEI(1T)-XLEI(1R))/(YLEI(1T)-YLEI(1R))
                                                                DRBCUX
                                                                                . IBSIDE
                                                                                                              FLINEXR,XT,Y,YR,YT) = XR+(XT-XR)/(YT-YR)*(Y-YR)
                                                                                           ETABL(10) . ZBOD(20) . NRBS
                             •
                                             . RBCL(30,90)
                                                                         SALPH(90) , SALPHX (30)
                 FYX(20.30), CPS(20.90)
KBMAX . KBMAXX
                                                                                                                                                                                                                                                                                                                                                                                                                     KX0(2.1) = XX0(2.3)-(DXR0(2)+DXT0(2))*DY
                                                                                                                                                                   GD TD 20
10 IF (ETA(K).GT.ETA(KA)+2.*bY) GD TD 30
                                    . LLRUX
                                                              . DRRCL
                                                                                 . IBLD
                                                                                                                                                                                                                                                                                                                         IF (*X0(2,3),GT. Y.E! (!)) GO TO 32
                                                      RBC1X(20,30)
                                                                                                                                                   (ETA(K).GF.YRB) GD TO 10
                                                                DRECU
                                    LLRX
                                                                                  IBUD
                                                                                                                                                                                                                                                                                             rx0(2.2) = YX0(2.1)+07
                                                                                                                                                                                                                                                                                                      VX0(2,3) = YX0(2,2)+DY
                                                                                                                                                                                                                                                                                                                                                                                                                                               VX0(1.2) = YX0(2.1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         XX0(1.1) = XX0(2.1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  xx0(1,2) = xx0(1,1)
                                                                                                                                                                                                                                                                                    VX0(2.1) = ETA(KB)
                                                                                                                                                                                                          C****** X1=0. BENDING
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C C****** XI=1. BENDING C
                                                                                  COMMON / BODYBC
                           COMMON / BODV3
BEND
                                                                                                                                 = .05#SSPAN
                                                                                                                                          20 K=1 .KMAX
                                                                                                                                                                                                                                                                                                               DO 32 1=2,NLE1
                                                                                                                                                                                                                                                                                                                                                                                                                                      WX0(1.1) = 0.
                                                                                                                                                                                                                                                                                                                                                                                                  DXR0 (2) = 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DXR0(1) = 0.
                                                                                                                                                                                                                                                                                                                                                                       WRITE(6,200)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DXT0(1) = 0.
                                                                                                                                                                                                                                                                 KXO(1) = KB
                                                                                                                                                                                                                                                                           KX0(2) = KF
                                                                                                                                                                                                                                                                                                                                         IR = 11-1
GO TO 40
CONTINUE
                                                                                                                                                                                                 20 CONTINUE
                                                                                                                                                            = K+1
                                                                                                                                                                                                                                     NS0 = 2
                                                                                                                                                                                        KF = K
                                                                                                                                                                                                                                                                                                                                                                                 STOP
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LEVEL 2.2 (SEPT 76)
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IL 2.2 (SEPT 76)	
LEVEL	

NXI(1) = 2  WXI(2) = X  WXI(2) = XF  KXI(1) = KF  KXI(2) = KF  KXI(2) = KF  KXI(2) = XF  VXI(2,1) = YXO(2,1)  YXI(2,2) = YXO(2,2)  YXI(2,3) = YXO(2,3)  DO 42 [=2,NTE]  IF (YXI(2,3) = XYO(2,3)  DO 50  42 CONTINUE  WRITE(6,201)  STOP  SYXI(2,3) = FLIN(XTEI(IR) *XTEI(IR), YXI(2,3) *YTEI(IR)  XXI(2,3) = (XTE(1)) + XXI(2,1) + XXI(2,1) + YXI(2,1) + YXI(2,1)  XXI(2,2) = (XTE(1)) + XXI(2,1) + XXI(2,1)  XXI(1,1) = 0.  YXI(1,2) = XXI(1,1)  XXI(1,2) = XXI(1,2)  XXI(1,2) = XXI(1,2)  XXI(1,2) = XXI(1,2)  XXI(1,2) = XXI(1,2)  XXI(1,2) = XXI(1,3)  XXI(1,3) = XXI(1		BEND SO	BEND 51	REND 52	BEND 53	BEND 54	BEND 55	BEND S6	BNDFX 9	BNDFX 10	RNDFX 11	BNDFX 12	BNDFX 13	ANDEX 14	BEND 58	BEND 59	).YTEI(IT)) BNDFX 15	BEND 61	BNDFX 16	BEND 63	1*DY/3. REND 64	BEND 65	BEND 66	BEND 67	BEND 68	BEND 69	BEND 70	BEND 71	BEND 72	BEND 73	
	NS1 = 2	MX1(1) = 2	NX1(2) = 3	KX1(1) = KB	RX1(2) = KF	WX1(2,1) = YX0(2,1)	YX1(2,2) = YX0(2,2)	YX1(2,3) = YX0(2,3)	00 42 I=2,NTEI	IF (VX1(2,3),6T.VTE1(1)) GO TO 42	T = 1.	IR = 17-1		CONTINUE				DXR1(2) = 0.	DXT1(2) = (XTES(1T)-XTEI(1R))/(YTEI(1T)-YTEI(1R))	XX1(2,1) = XX1(2,3)-(DXR1(2)+DXT1(2))+DY	XX1(2,2) = (XX1(2,1)+XX1(2,3))/2,+(0XR1(2)-0XT1(2)	YX1(1,1) = 0.	YX1(1,2) = YX1(2,1)	$xx1(1_01) = xx1(2_01)$	xx1(1,2) = xx1(1,1)	DXR1(1) = 0.	DXT1(1) = 0.	RETURN	FORMAT (/10X,25HTROUBLE BENDING XI=0	FORMAT(/10X, 25HTROURRE BENDING X1=1	

\*OPTIONS IN EFFECT\*SOURCE FBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP \*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

#STATISTICS# SOURCE STATEMENTS = 79, PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

144K BYTES OF CORE NOT USED

1302. SUBPROGRAM NAME = BEND

REQUESTED OPTIONS OPTERS NOWAP

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	ISN C	2000	SUBROUTINE FINGRO	NE FINGR	9							FINGED 2	
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		•	C AUTORA	TIC GENE	AUTOMATIC GENERATION OF FINE INNER GRIG	. INE	INNER GRIG					FINGED 4	
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	ISN	0003	COMMON / INDEX /	INDEX /			KMAX .	LMAX		KTHI	•	INDEX 2	
			1		KTIP		KTIP1 .	ME		ALE(30)	•	INDEX 3	
			2		MA	•	JTE (30)	LUING	•	LWINGU	•	INDEX 4	
			3		JEAX1		KMAX1 .	LMAXI		100.00	•	COMP IX 1	
			* 45.5 m 20.0		105							INDEX 6	
	15N 0004		COMMON /	FLAGS /	1015K		ISAVE .	IPLOT		KSHINT	•	FLAGS 2	
			I The state of		SOLV	•	BCPRT .	BECPRT		MODY	•	FLAGS 3	
			2		FCR		ISPAN .	IF INR		ICRUDA	•	INPTX 1	
			3		EXTMSH		REMESH .	IMAPP		YAN	•	INPTX 2	
					18thep		IVISC .	ITVIST		FOILT	•	INPTX 3	
			s		IRODIN		AXISYM .	AREA	•	IBLOUT		INPTX 4	
	15N 0005	5000	LOGICAL		IDISK		ISAVE .	IPLOT		SHINT	•	COMP IX 4	
			1		SOLV		MACPRT .	ВВСРЯТ		AGOS	•	COMP IX S	
			2		FCR		ISPAN .	IF INR		ICPUDA		COMP IX 6	
			3		EXTMSH		REMESH .	TMAPR		YAW	•	COMP IX 7	
					IBUMP		IVISC .	ITVIST		FOILT	•	COMP BX 6	
			2		IBODIN		AXISYM .	AREA		BLOUT		COMP IX 9	
	15N 0006	9000	/ NOWHOD	VING /	YRODT	*	ALEP .	XTER	•	TIP	•	WING 2	
			-		XLET		xter .	SREF		SMEEP	•	INDTX 7	
			2		MEI		AE1(10) .	XLE1(10)		STRUE	•	INPTX 8	7
			3		MTEI		MET(10) .	XTET(10)	•	SXPOS	•	INPTX 9	
			•		CRODIT		SSPAN	THICK(11)		ZENGEL	•	INPTX 10	
			•		MACH		metili)	THETP(11)		MTWST	•	AIRFORES	
					-			TMI V (111)		TE (180-11		A TOE OF A	
					75 (180 . 11	•	CSWTHS	XISON		M F ( 30 )	•	INDIA 11	
28			•				102)(20)	COOLINGTON		TOO TWEET			
33			. •		TEL TO		DEACT	CHEAN		( 0E ) A S L		WING TO	
					200			KX01123		CX 1 (12)		410Emes	
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			. u		W 1041		TOTAL STATE	STEPANSON.		Thou was	•		
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	15N 0007	1000	NOWHOO .	INTER	XIIIO)		ETA(30)	21(20)	•	XIN (90)	•	INTER 2	
			- '		XIE(90)		x1C(90)	XIR(90)		ETAL (30)	•	INTER 3	
			2		ETAC(30)		ETAR(30)	COED	•	COEL	•	INTER .	
			n		ZCW	. 1	מת.	ZRM	•	XK	•	INTER 5	
			•		PDUM(30)		EDUM(30)	XMIN		XMAX	•	INTER 6	
			•		WAAX	. 2	ZHAX .	VHIN		MIN	•	INTER 7	
			•		AW	. 7	ZPWU					INTER 8	
	15N 0008	9000	COMMON /	MESHX	/ DXC		DXT .	DXMX			•	RMSFX 1	
			-		•		xost .	ALG.	•			PMSFX 2	
			2		DXEI		xTI .	DXMXI	•	NF.I	•	RINSEX 3	

6000 NSI	,						•						
6000 NS	•				•						DMCEY	· ·	
6000 NS	•			Ingi		2100					E		
		COMMON / RELAXP	RELAXP /	MAXIT	•	MAXITN		MAXITX	INCR	2	. PEL	PELA XP Z	
	-			INGX	•	RTEST	0	RTESTX	RSOB	2	. REL	RELAXP 3	
	N			RSUBX		RES 10 J (30)		EPS	EPSEX	EX	. REL	RELAXP 4	
	m			5		XIX		SRD	KRD		. REL	RELAXP 5	
	•			- 60		RIGRI		4	KF		. RE!	RELAXD 6	
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	•			10466							DEN	DENE &	
*****		-		2000	,			TO TANK OF	3	APT CINION			
0100 851		COMMUNA / DODAY		TO TO		P. 20.00	•	TO THE CONTROL	2000	200			
	-			NECEDS		College College	•	JOHN (2)	3	35	• 000		
	2			JIAIL		ALPHAB	•	NBPTS(90)	. R(90)		• 800V	4	
	n			KBWX (90)		CMN	•	CMX	. AFK	AFK (15)	. 8000	2	
	*			BFK(15)		CFK (15)		AFL(15)	BFL.	BFL(15)	. B00v	9 1	
	S			CFL(15)	٧.	ABL (15)		BBL(15)	38	CBL(15)	. BODY	1 1	
	9			ACL(2)		BCL(2)		ככרוה	BTYPE	PE	• BOD •	8 >	
	1			XRBU(90)	× .	XRBL (90)		DZRBU(90)	DZR.	DZRBL(90)	. CHEN!	1 1 1	
	•			NRBU	2	NRBL		YRB	2880	2	. 80DV	V 10	
	0			ZREE		KBMXX ( 30 )		SNOSEX	ATA .	STATLX	· BODV	11 7	
				BR IN(2 .35)		XNUSEX		XTAILX	YOR		FIX	FIXCY4 1	
15N 0011		NUMMUN	PODA /	EX (30.90)		FY (30.90)		F7 (30.90)			- CO.	COMF 1X23	
	•			KRITO ( 70.00)				BILL 20-001		I RD C SO SO S		COME 1X24	
				TO COLOR OF THE PARTY OF THE PA		00.020.00		100000000000000000000000000000000000000		10000		COME BYSE	
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				LIKE CO SOL		CPS ( 20 + 30 )					ה ל ל		
ISN 0012		COMMON / BODAS	BODAS /	KBWAX		KBMAXX	•	CLBL	TERO	5	• 800A	18	
				LERX	•	LEUX		RBCU (30 - 90)				COMF 1X29	
				KBS		MBCL (30 . 90)					000	COMP 1X30	
	n			RBCUX ( 20 + 30 )	301		•	RBC_X(20,30)	•			COMP 1X31	
	•			DARCO	•	DRBCL		DRBCUX	288	DRBCLX	00.	COMF TX32	
	3			SALPH(90)	•	SALPHX (30)	_				000	COMF TX33	
ISN 0013		COMMON	COMMON / BODYBC /	TBUD		IBLD		185 I DE	ETA.	ETABU(10)	· COM	COMF 1X34	
	•			ETABL(10)		ZB00 (20)		NRBS	XXB	XRBS(100)	000	COMF 1X35	
N 00 14		DIMENSIO	DIMENSION ZT1(10)			200					FIN	FINGROTT	
15W 0015		DATA 77	10.00684	0.02856.0.0	0000	3-0-1166	6.0	PATA 771/0-00484-0-00554-0-05903-0-11444-0-20800-0-3503-0-54095-	SO 36.	20075-0		FINGEDTS	
			22720 : 64 906 : 62370	. 0747									
		20000	200201050	1100011								CHOIS	
	J	)									21.	INCHOIS.	
ISN 0016		FLINCXR.	XT.Y.YR.Y	FLIN(XR.XT.Y.YR.YT)=XR+(XT-XR)/(YT-YR)+(Y-YR)	XR)	(YT-YR)*	1	TR)			XI'Y	STAGE 9	
	v										FIR	FINGROTE	
	v										FIN	FINGRD17	
	0	EVENLY	SPACED ET	EVENLY SPACED ETA FINE GRID	0						FIN	FINGROTS	
		No. of Control of Control		2007-201							FIN	FINCEDATO	
15N A017	,	TELVANI	PERVANT CO TO 30								FIN	FINGENSO	
												2	
		DOT - LIVE	100 TO								2	SWEET XITS	
			The second	0 11 11							-	A	
		IL COND	( NOT SHE ME SHE) GU TU 8	0 11 09							E	CHIST XI CO	
		DEACT =	8								KIN	RMSF X176	
		KMAX = 20	0.								RMS	RMSF X177	
1SN 0026		KTIP=15									FIX	FIXC VIZE	
ISN 0027		60 10 9									RMS	RMSF X179	
	8	DFACT =	0.0 =								RMS	RMSFX180	
											FIN	FINGROS	
13W WES		-										TOWN THE TOWN	

2	EVEL	2.2	(SEPT	167	FINGRD 05/360 FORTRAN H EXTENDED	DATE 77.295/15.59.3
	ISN	0031		0	XW = KTIP-1	PMSF X181
	ISN	0032			DETA = SSPAN/(XNW5)	RMSF X182
	ISN	0033			DO 10 K=1,KTPP	RMSF X183
	ISN	0034			ETA(K) = (K-1)#DETA	PMSF X184
	ISN	90 35		10	CONTINE	FINGR027
	ISN	900			KTP1 = KTIP+1	RMSFXIRS
	ISN	0037			DO 11 K=KTP1.KMAX	RMSF X186
	ISN	90 38			WFACT = VFACT+DFACT	RMSF X187
	ISN	00 39			DETA = DETA*YFACT .	PMSFXIRB
	ISN	0040			ETA(K) = ETA(K-1)+DETA	PMSFX189
	ISN	0041		=	CONT INCE	PMSFX190
			v			FINGRD28
	ISN	0045			£0 T0 38	VAW 280
	ISN	0043		30	CONTINUE	FINGRD29
	ISN	4400			KMAX=6	
	ISN	0045				
	ISN	9000				
	ISN	0047		3	M	YAW 264
			U		BEND MESH	FINGROSO
	LA NOTE		U		A CONTRACTOR OF THE PROPERTY OF	FINGROSI
	ISN	0048		38		RMSF X191
	ISN	0020			IF ( MOT REMESH) GO TO 13	DMSFX192
	2	2000			CALL XM.SHIXI SDXLI SDXHI SDXMXI SJMAX SNF I SNB I SXDS II SXLGI S IDUTI S IDUTZ SMSF XI93	. IDUTZIRMSEXIGS
	ISN	0053			IF ( JMAX . LE . 90) GD TO 16	FAILSABT
						FAILSON
			) د		PAUDICEM NO. 10	PAIL SABS
	7	-				FAILSAGO
					ex)   E(0,9/0)	CATI SAGI
	HOL	8	•			2642167
	ISN	7800	,		I IF CAMP, BODY I GO TO IS	DMCE X105
	2	0000		:	IF ( -NTT - I MADR )	FINGBORS
		-	U		1	FINGBOAA
	ISN	1900	,		XPH NRL =F1 TN(X1 F1(1), X1 F1(2),0,0, V1 F1(1), V1 F1(2))	FINGBORS
	NS	0062			XPLNRT=FLIN(XTE1(1), XTE1(2), 0, 0, 0YE1(1), VTE1(2))	FINGROAP
2	ISN	0063			CMAPRT=XX 1(1,1)-XX0(1,1)	F INGROST
85	ISN	4900			DMPLE=(XX0(1,1)-XPLNRL)/CMAPRT	FINGROJE
	ISN	9900			DMPTE=(XPLNRT-XX1(1.1))/CMAPRT	FINGROTO
	ISN	9900			xTG = xDST-1XLG	PMSF X196
	ISN	1900			XTO = XTG	PMSF X197
	ISN	9900			XTG = AMAX1 (XTG.1.1*DMPTE)	RMSF X198
	ISN	6900			XLO = XLG	PMSFX199
	ISN	00 70			ALG = AMAX1 (XLG,1.1*DMPLE)	RMSF X200
	ISN	00 71			5T = 1.+XLG+XTG	RMSF X201
	ISN	0072			(XLG.GT.XLD) NF	PMSF X202
	ISN	0074			IF (XTG-GT-XTO) NB = NB+IFIX(6.*(XTG-XTO))	PMSF X203
	NO.		u			FINGROAS
	ISN			15	200	RMSF X204
	ISN	200			IF (JMAX.LE.90) GO TO 16	FAIL SAGA
						FAILSASS
					FORES NO. 10	FA11 5495
	ISN	92.00			WRITE(6.970)	FAT: COR

agan wer	\$ 1	THE STATE OF THE S
		THERE
	C Z GRID	FINGROSE
	O Contraction of the Contraction	FING DO
1800	16 ZFACT = 1.	BHSF X205
2900	IF (IPASS-6T-1) GO TO 19	PHSF X206
9000	IF (.NDT.REMESH) GO TO 19	PHSF X207
9800	ZFACT = 5.	PHSEXPOR
7800	19 LWINGU = 11	PHSF X209
9900	LMAX=20	FINGROSI
6900	DO 20 L=1,10	FINGMES
0600	ZT(L-L-WINGJ-1)=ZT1(L)	FINGROSS
1600	ZT(LWINGU-L)=-ZT1(L)	FINGROSA
2600	20 CONTINUE	FINGADAS
		FINGROSE
15N 0093	DO 22 L=1 LMAX	FINGROST
***	22 ZT(L) = ZT(L)+CROOT+FACT+ZWGWL	RHSF X210
9600	JF(.NDT.BDDV) RETURN	F1XCY438
7600	15E7=0	FIXC VA39
9600	CO ? L=2.cUAX	FIXCYAGO
6600	IF(1SET-E0-1) GO TO 3	FIXCV441
1010	L1814-1	FIXCYAA2
2010	15C7=1	FIXCYAA3
0103	3 1F(ZV(L)-LV-ZRBU) G0 T0 2	FIXCYAAA
9010	LLBU=L	FIXCYAAS
9010	60 70 1	FIXCYAAR
1010	2 CONTINUE	FIXCY447
9010	1 CONTINUE	FIXCYAAB
	Control of the Contro	FINGROS9
1SN 0109	RETLIPH	FINGROED
1SN 0110		2
	1ESH TOO LARGE. ALTER INPUT MESH PARAMETERS. ///)	FAIL SSO 1.
12N 0111		FINGROEI

MOPTIONS IN EFFECT+NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 1908. SUBPROGRAM NAME =FINGRO 110. PROGRAM SIZE = SOURCE STATEMENTS =

\*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*

140K BYTES OF COPE NOT USED

DATE 77.295/15.59.58

REQUESTED OPTIONS OPTIES, NOMAP

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ISN 0002		SUBROUTINE CROGRO	INE CRDG	8				CROGRO 2	
	U							CRDGRO 3	
		CRUDE Z	MESH NO	CRUDE Z MESH NOMINALLY IN ROOT CHURDS	T CHURDS			CROCKO &	
1SN 0003		COMMON /	INDEXX	/ JMAXX	KMAXX	. LMAXX	KTM1X .	INDEXX 2	
		-			KTIPIX	. JEX(20)	. JEX(20) .	INDEXX 3	
		8		LINNGUX .	LWNGLX	. JMAXXI	. KMAXXI .	INDEX 4	
				LMAXX1	KROOTX	. JPIX		INDEXX S	
15N 0004	8	COMMON	/ EXTER	/ XIEX(30) .	ETAX(20)	. ZTX(20)	. XINX(30) .	EXTER 2	
				X1LX(30)	X1CX(30)	. XIRX(30)	. ETALX(30) .	EXTER 3	
		~		ETACK(20)	ETARX(20)	. XMINX	. XXMAXX	EXTER 4	
		n		YMAXX .	ZMAXX	. YMINX	. ZMINX	EXTER 5	
				ZLWLX	ZAW.X	• ZCWLX	. ALVUX	EXTER O	
3000	,	Series / series	-		A EB	VIED	410	WING 2	
2	3				xter	CDEF	CWEED	1MD1 x 7	
		. ~		N. F.	WE1(10)	. XLE1(10)	STRUE	TAPTX 8	
				NTEI	YTE1(10)	• XTE1(10)	SXPOS	INPTX 9	
				CRODT	SSPAN	. THICK(11)	. ZWNGWL .	INPTX 10	
		9		NP AN	W(111)	. THETP(11)	. NTWST .	AIRFOILS	
		9		YTWST(11)	INUX(11)	· INLX(11)	» XF(180.11).	ATRFORLS	
		1		ZF(180.11).	KSMTHS(11)	WOWX .	, XLE(30) .	INPTX 11	
				XLEW(30) .	COMD (30)	. CORDW(30)	CORDIN(11).	WING 10	
		•		XTE(30) .	REACT	. CHEAN	, XTEW(30) .	WING 11	
		•		. osw	NS1	. KX0(12)	. KX1(12) .	ATRFORES	
				NX0(12) .	NX1(12)	. vx0(12-10).	. WI(12.10).	AIRFOILS	
		v		XX0(12-10).	XX1(12.10)	. DXR0(12)	. DXR1(12) .	AIRF0110	
		٥		DXT0(12) .	OXT1(12)	. ALPHAN	MIPLE .	AIRFOILL	
		E		NT IPXI .	XLEWX (30)	. XTEWX(30)	· CORDX .	CHORD 1	
		L		CAV .	XUX	. XLEWP(30)	, XTEWP(30) .	VSCFX3 1	
		9		KSWICH				VSCFX3 2	
1SN 0006	90	COMMON	/ RODVI	/ XNOSE .	XTAIL	· NB IN(2)	. XBIN(2,35).	BODY 2	
		-		· SODEN	\$100(2)	. JBDN(2)	. JNOSE	800V 3	
		2		JTAIL .	ALPHAB	. NBPTS(90)	. R(90)	BODY 4	
		3		KBMX(90)	25	· LMX	. AFK(15) .	BODY S	
		•		BFK(15) .	GEK (15)	. AFL(15)	BFL(15) .	BODY 6	
		S		GFL(15) .	ABL(15)	• BBL(15)	CBL(15) .	800V 7	
		•		ACL(2)	BCL(2)	· ccr(5) ·	BTYPE .	800V 8	
				XREU(90) .	XRBL (90)	. DZRBU(90)	DZR8L(90) .	CHEN 1	
				NRBU .	MARL	· YRB	ZRBU .	800V 10	
		6		ZRRL	KBMXX (30)	• JNOSEX	JATATLX .	BODY 11	
		•		RB IN (2,35),	XNOSEX	. XTATU.	. voB	FIXCM 1	
1SN 0007	20	COMMON /	BODAS	/ FX(30,90) .	FY(30,90)	. FZ(30,90)		COMF IX23	
		- Wheeling		KB(10,30,90)		. LBU( 20.90) .	LBD(20,90).	COMF TX24	
		2		NBPTSX (30).	LB00(30,90)		The separate services	COMF 1X25	
		3		LFUK (20,30)		. LBDX (20 .30)	· TO A SHEET FOR	COMF IX26	
		•		FYX(20.30).				2	
15N 0008	80	COMMON / BODAS	ENDON3	/ KBMAX	KBMAXX	· LLBL	· LEBU .	RODY 18	

		-	LR	LLRUX	, RBCU(30.90)	100			COMF 1X20	
		2	KRS .	RECL (30,90)		•		U	COMF TX30	
		n	RBCUX ( 20 .30 )	•	, RBCLX(20.30)	1 930			COMP IX31	
		American A setting & N. 19	DRBCU .	DRBCL	DRBCUX	•	DRBCLX		COMF 1X32	
		·	SALPH(90) .	SALPHX (30)				0	COMP 1X33	
15N 0009		COMMON / BODYBC /	IRID	TRED	TBS TDE		ET ABU( 10)		COMF 1X34	
			ETABL(10)	ZBOD(20)	MAHS	•	MERS ( 100)	U	COMP IX35	
ISN 00 10		COMMON / FLAGS /	IDISK .	ISAVE	IPLOT	•	MSHINT		FLAGS 2	
		Constitution of sections of	· Anos	MBCPRT	BBCPRT	•	AGOL		FLAGS 3	
		N	FCR .	ISPAN	IF INE		ICRUDA		INDTX 1	
			EXTMSH .	REMESH	IMAPR	•	YAN		INDTX 2	
		•	IBLEEP .	IVISC	ITWIST .		FOILT		INPTX 3	
		•	IBODIN .	AKISYM	. AREA		PBLOUT	-	INPTX 4	
ISN 0011		LOGICAL	IDISK .	ISAVE	. IPLOT	•	HSHINT		COMP TX 4	
		-	SOLV .	WBCPRT	. BBCPRT	•	BODY		COMF IX 5	
		2	. 2	ISPAN	IF INE	•	1CRUDR		COMF IX 6	
		. 6	EXTMSH .	REMESH	IMAPR	•	YAW		COMP IX 7	
		•	IBUMP .	IVISC	ITAIST .	•	FOILT		COMP TX 8	
		•	IRODIN .	AXISYM	AREA .		IBLOUT	Ō	COMP IX 9	
ISN 0012		C#-10						Ū	CRDGR011	
		LWNGUX=11						U	CPDGRO12	
		LMAXX=20						U	CRDGRD13	
ISN 0015		ZMAX=10.0						O	CRDGRD14	
		71=0-12						U	CROGROTS	
15N 0017		IF( .NOT . BODY) GO TO 20	0.20					Ū	CROGROIG	
		ZDZTOT=(ZRBU-ZRBL) ACORDX	ACORDX					C	CPDGRD17	
		ZDZL=(ZWKGWL-ZRRL)/CORDX	/CORDX					U	CROGNOTS	
15N 0021		ZDZU=(ZRBU-ZWNGWL)/CORDX	/CORDX					0	CROGROTS	
		ZDZL 1=ZDZ_/ZDZTOT							FIXGX 10	
		ZOZUI=ZOZU/ZOZTOT						L	FIXGX 11	
		IF (ZDZL1.LE.0.60.AND.ZDZL1.GE.0.40) Z1=AMINI (ZDZL, ZDZU.Z1)	ND-ZDZL1-GE	-0-40) Z1=A	IINI (ZDZL	DZQZ.	.21)	L	-1x6x 12	
		FF ( ZDZL 1.6T.0.60)	Z1=AM! N1 (ZDZL/2.0.Z1)	ZL/2.0.21)				4	FIXGX 13	
1SN 0028		F ( 202 L 1 - L T - 0 - 40 )	Z1=AMINI(ZDZU/2.0.21)	ZU/2.0.211					FIXGX P4	
	v								FIXGX 15	
ISN 0030	20	CONT INCE						ū	CRDGRD23	
		XLM=UM						Ū	CRDGR024	
		ZTRN=XLM-0.50						ū	CP064025	
ISN 0033		BZ=( ZMAX-2.0+21+2TRM)/(7TRM++3-0.25+2TRM)	TEM 3/ (7 TRM##	3-0-25#ZTRM				Ū	CRDGRD26	
ISN 0034								0	CPOGRO27	
		DO 40 L=1,LM						Ū	CROGROZE	
ISN 0036		MLL=L						Ū	CROGROZO	
		MLL2=XLL-0.50						ū	CRDGRD30	
15N 0030			82*XLL2**3					ū	CPDGFD31	
	•	ZTX(EM-L+1)=-ZTX(L+LM)	15					Ū	CPDGR032	
	v							ū	CPDGRD33	
	u	CONVERT TO PHYSICAL COORDINATES AND SHIFT TO WING WATERLINE	AL COORDINA	TES AND SHIP	T TO WINE	WAT	BRLINE	Ū	CROGRD34	
	u							5	CPOGRO35	
								Ū	CRDGRD36	
	45		X+ZANGML					ū	CROGRO37	
15N 0042	r	JEC.NOT.BODY) GO TO						0	CPD GRD 38	
		JBDCNT=0						4 1	- IXCY449	
15N 0045								_	-1XCV450	
	+3	I JF (ZTX(L) .GE .ZPBL.AND.ZTX(L).LE.ZPBU) IBDCNT=IBDCNT+1	AND.ZTX(L).	LE.ZRBU) IBC	CNT=180C	11+1		1	FIXCVASI	

ISN 0048		1F(1800	JF(IBDCNT.6E.2) GD TD 44 JF(ZDZL1.GT.0.60) ZTX(LWNGUX-2)=ZRBL	FIXCY452 FIXGX 16	
ISN 0052		44 CONTINUE	JF(ZDZL1.LT.0.40) ZTX(LWNGUX+1)=ZPBU	FIXGX 17 CPDGRD41	
	UU			CPDG RD 42	
		CRUDE	CRUDE ETAX GRID	\$4000000	
2200	,	*******		200	
TANDO MAI		KTIDX=		CPDCBD47	
		KTM1X = 11		CRDGRD48	
		XNW=KT!	- Xd	CRDGRD49	
		DETA=1.		CRDGRD50	
18N 0061		PO 30 K	(=1 oKTIPX	CPDG PD 51	
ISN 0062		30 ETAX (K)	={K-1}*0ETA	CROGROSS	
	u			CPDGR053	
ISN 0063		K=KT IPX		CPDGRDS4	
		32 DETA=1.	7*DETA	CROGROSS	
15N 0065		K=K+1		6PDG4D56	
15N 0066		ETAX (K)	=ETAX(K-1)+DETA	CROGROST	
15N 0067		IF(K.EQ	IF(K.E0.20) GO TO 34	CPDGRDSB	
15N 0069		IFLETAX	IF(FTAX(K).LT.5.0) GO TO 32	CRDGR059	
ISN 0071		34 KMAXX=K		CRDGPD60	
	U			CPDGPD61	
	U			CRDGR062	
	U	COM	CONNERT TO PHYSICAL CONORDINATES	CADGAD63	
	v			CRDGRD64	
		DO 36 K	(=1 oK MAXX	CPDGRD65	
		36 ETAXEK)	JETAX(K) #SSPAN	CRDGROSS	
15N 0074		IF( .NOT	F-BCDY) RETURN	CPDGRD67	
ISN 0076		PFLETAX	IF(ETAX(2).GT.YRB) ETAX(2)=YRB	СРОСРОВА	
	U			CRD GRD 69	
15N 00 78		RETURN		CPDGRD70	
	U			YAW 286	
15N 0070	-	100 CONTINUE		YAW 287	
ISN 0080		KMAXX=6		YAW 288	
ISN 0081		KT1PX=6		VAW 289	
		KTM1X=KTIPX-1	TIPX-1	VAW 290	
		00 110	K=1.KMAXX	YAW 291	
		110 ETAXEK)	)=(K-1)*0.220		
	U			VAW 293	
15N 0085		RETURN		FIXCYASE	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		50		CONCONT.	

STATISTICS NO DIAGNOSTICS GENERATED

1596. SUBPROGRAM NAME =CPDGRO

#5. PROGRAM SIZE =

SOURCE STATEMENTS =

\*STAT I STICS \*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

144K HYTES OF CORE NOT USED

REGUESTED OPTIONS OPT(2) . NOMAP

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ME (MAIN) OPTIMIZE(2) LINECONNT(56) SIZE(MAX) AUTODBL(NONE)	URCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTWT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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	F OUTPUT POINTS  T POINTS  T)  E OF FUNCTION AT XOUT  X DXU(90) , DXL(90) , XDUM(90) , XDUM2(90) , XDUM3(90) , XDUM4(90) , XDUM5(90) , XDUM5(90) , XDUM5(90) , XDUM5(90) , XDUM6(2000) , XDUM5(2000) ,
000 000 000 000 000 000 000 000 000 00	EQUIVALENCE (XINO(1) *XDUM(1)) *(YINO(1)) *XDUM2(1)) *  (YOUTO(1) *XDUM3(1)) *(YEDUTO(1) *XDUM4(1)) *  DIMENSION XINO(90) *YINO(90) *YEDUTO(90) *  C NINO=NIN **  NO 5 1=1.0NIN **  NO 5 1=1.0NIN **  NO 5 1=1.0NIN **  NO 10 5 1=1.0NIN **  CAL VINTER (YOUTO *XDUT *) *NOUT *YINO *XINO*1 ** NINO*4*0) **  CAL VINTER (YOUTO *XDUT *) **  CAL VINTER (YOUTO *XDUT *) **  NOT(1) **  CAL VINTER (YOUTO *XDUT *) **  NOT(1) **  NO (1) **  NO
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MOPTIONS IN EFFECT MAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOKREF ALC NOANSF TERM FLAG(1) DUMP

26. PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED \*STATISTICS\* STURCE STATEMENTS =

LEVEL 2.2 (SEPT 76)

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

291

164K BYTES OF CORE NOT USEN

802. SURPROGRAM NAME =DATTEN 05/360 FORTRAN H EXTENDED

DATE 77.295/16.00.25

# REQUESTED OPTIONS OPTES) . NOMAP

	SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMI NOXREF ALC NOANSF TERM FLAGII) DUMP
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MAIN) OPTIMIZE(2) LINECOUNT(56) SIZE (MAX) AUTODBL(NONE	FCK
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ELLIPSE INFORMATION  COMMON / BODVI / XNDSE , MEDDS ,		ZEI IDS.FNX.	FNY.FNZ)	FI IDS	•
C CCMMIN / BODV1 / XNOSE  1					
C CCHMCN / BODVI / XNGSE . 1 TAIL . 2					
CCOMMUN / BODV1 / XNOSE  1				ELIT	
COMMON / BODV1 / XNOSE  1				FLIPE	2
1 NEGDS  2 JAAIL  3 KRWK(90)  4 BFK(15)  5 GFL(15)  6 ACL(2)  7 XRFU(90)  8 ACL(2)  ACOMMON / BODVA / XUCL(90)  ACOMMON / BODV	11.	NB IN(2)	. XBIN(2.35).	HOOM	~
2	JBUP(2) .	JBDN(2)	. JNOSE	NOON .	
3 KBWK(90) *  4 BFK(15) *  5 CFL(15) *  6 ACL(2) *  7 ACL(2) *  8 ACL(2) *  8 ACL(2) *  9 ACL(2) *  10 NPBU	ALPHAB .	NBPTS(90)	. R(90)	A008	
## BFK(15) **  6 ACL(15) **  7 ACL(2) **  8 ACL(2) **  9 ACL(2) **  1 NPBL  1 NPBL  1 NPBL  1 NPBL  2 NPBL  2 NPBL  3 ACDMON / BODV2 / FX(30.90) **  1 COMMON / BODV3 / KBMAX **  1 LELX **  2 ACDMON / BODV3 / KBMAX **  1 COMMON / BODV8 / ILBUD  1 COMMON / BODV8 / ILBUD  1 COMMON / BODV4 / XUC.(90) **  5 COMMON / BODV4 / XUC.(90) **  6 ACDMON / BODV4 / XUC.(90) **  7 COMMON / BODV4 / XUC.(90) **  8 ACDMON / BODV4 / XUC.(90) **  9 ACDMON / BODV4	•	LMX	. AFK(15) .	BODY	2
5 GFL(15) **  6 ACL(2) **  7 ARRU(90) **  8 ACL(2) **  9 ACL(2) **  10 ARRU(90) **  11 RRD(30,90) **  12 RRD(30,90) **  13 ARRD(30,90) **  14 ARRD(30,90) **  15 COMMON / BODV3 / KBMAX **  1 LELX **  1 LELX **  2 ARRU(20,30) **  1 COMMON / BODV4 / XUCL(90) **  1 COMMON / BODV4 / XUCL(90) **  2 COMMON / BODV4 / XUCL(90) **  2 COMMON / BODV4 / XUCL(90) **  4 ARRES **  5 ALPH(90) **  6 COMMON / BODV4 / XUCL(90) **  6 ARRES **  7 ARRES **  8 ALPH(90) **  8 ALPH(90) **  COMMON / BODV4 / XUCL(90) **  6 ARRES **  8 ALPH(90) **  COMMON / BODV4 / XUCL(90) **  COMMON / BODV4 / XUCL(90) **  COMMON / BODV4 / XUCL(90) **  8 ALPH(90) **  COMMON / BODV4 / XUCL(90) **  COMMO	GK(15) .	AFL(15)	. BFL(15)	AQOB .	•
## ACEL 2)  ## ACEL 20  ## ACEL 30  ## ACE	ABL(15) .	BBL(15)	. CBL(15)	BODY	1
## KREU(90) **  ## KREU(90) **  ## KREU(90) **  ## KREU(90) **  ## KREU (2,35) **  ## KREU (2,30) **  ## COMMON / BODV3 / KBMAX **  ## KREU (2,30) **  ## COMMON / BODV4 / XUQ. (90) **  ## COMMON / BODV4	BCL(2) .	CCL(2)	. BTYPE	BODY	
8	XRBL (90)	DZRBUKOO	. DZRBL (90)	CHENI	_
9 CDMMON / BODV2 / FX(30,90) 1 CDMMON / BODV3 / FX(20,30) 2 3 HBTTSX(20,30) 4 CDMMON / BODV3 / KBMAX 1 1 CDMMON / BODV3 / KBMAX 1 COMMON / BODV8 / ILBLX 5 COMMON / BODV8 / IBUD 1 COMMON / BODV8 / IBUD 1 COMMON / BODV8 / IBUD 2 COMMON / BODV4 / XUCL(90) 2 COMMON / BODV4 / XUCL(90) 4 CC ZC=(ZUCL)(J)+ZLCLI(J))/Z.0 FNX=0.0 FNX=0		728	. ZRBU	900V 10	
A RRIN(2,35), COMMON / BODVZ / FX(30,90), RRID(30,90), RRID(30,90), RRID(30,90), A RRIN(20,30), COMMON / BODV3 / KBMAX  1 LLELX 2 3 RRCUX(20,30), COMMON / BODVBC / IBUD 1 COMMON / BODVA / XUCL(90), COMMON / BOD	KBMXX(30) .	MOSEX	. STATLX	11 WOON 11	_
COMMON / BODVZ / FX(30,90) , KROD(30,90) , S	* XNOSEX	XTAILX	. YOR	2	-
1 KRDD(30,90) 2 LBUK(20,30) 4 LBUK(20,30) 4 CDMMON / BODV3 / KBMAX 1 LLELX 2 KRS 3 RRCLX(20,30) 4 CDMMON / BODVBC / IBUD 1 CDMMON / BODVBC / IBUD 1 ETABL(10) 5 COMMON / BODVA / XUCL(90) 1 EVAHBI(1) * COMHBI(90) 5 COMMON / BODVA / XUCL(90) 6 COMMON / BODV	FY(30,90) .	F7 (30,90)		. COMF TX23	<b>m</b>
2	•	LBU( 20.90).	. LBD(20,90).	COMF 1X24	
3 LBUM (20,30) 4 FYK (20,30) 4 COMMON / BODV3 / KBNAX 2 2 KBS 3 RRCLX(20,30) 4 SALPH(90) 5 COMMON / BODVBC / 18UD 1 COMMON / BODVBC / 18UD 1 COMMON / BODVA / XUQL(90) 2 COMMON / BODVA / XUQL(90) 4 SALPH(90) 6 COMMON / BODVA / XUQL(90) 6 COMMON / BODVA /	LBOD(30,90)		•	COMP 1X25	2
# FYX(20,30).  CDMMON / BODV3 / KBMAX .  1 LELX .  2 KRGZX(20,30) .  4 SALPH(90) .  COMMON / BODVBC / IBUD .  1 COMMON / BODVBC / IBUD .  1 COMMON / BODVA / XUCL(90) .  2 ZCDMNON / BODVA / XUCL(90) .  2 ZCDMNON / BODVA / XUCL(90) .  2 ZCDMNON / BODVA / XUCL(90) .  4 SALPH(90) .  C ZCE(ZUCL)(J)+ZLCLI(J))/Z.0 .  C ZCE(ZUCL)(J)+ZLCLI(J))/Z.0 .  C ZCE(ZUCL)(J)+ZLCLI(J))/Z.0 .  FRX=0.0 FNX=0.0 .  FRX=0.0 FNX=0.0 .  FRX=0.0 FNX=0.0 .  FRX=0.0	•	LBDX (20.30)		COMF 1X26	9
COMMON / BODV3 / KBMAX	CPS(20,90)			COMF 1X27	
1	KBMAXX .	LLBL	. LEBU	800V 18	•
2 KBS KBS  3 RRCUX(20,30) 4 DRBCU 5 COMMON / BODYBC / 18UD )  1 ETABL(10)  1 ETABL(10)  2 COMMON / BODYA / XUCL(90)  1	· Xn	PRCU (30.90)		COME 1X29	
## RRCUX(20,30)  ## DRECU	PBCL (30,90)			COMP 1X30	
# DRBCU   5 SALPH(90)   5 SALPH(90)   1	•	RBC X120 ,30)	,	COMF 1X31	_
5 COMMON / BODYBC / 18UD 1 COMMON / BODYBC / 18UD 1 I XZMHB(90) 2 2 ZUGL1(90) 4 ZC=(ZUGL1(J)+ZLGL1(J))/2.0 C ZC=(ZUGL1(J)+ZLGL1(J))/2.0 FNX=0.0 FNX=0.		DRRCIM	. DRRCL X	COME TX32	•
COMMON / BODYBC / IBUD	SALPHX (30)			COMP IX33	
1 ETABL(10) .	. 0	IBSIDE	. ETABULIO) .	COMF 1X34	
0007 COMMON / BODV4 / XUCL(90) .  2	ZB00(20) .	NRBS	. XPBS(100)	COMP IX35	
1 XZM#B(90) . 2 NUCL 3 A ZUCL1(90) . 4 ZUCL1(90) . 6 ZC=(ZUCL1(J)+ZLCL1(J))/Z.0 0009 C ZC=(ZUCL1(J)+ZLCL1(J))/Z.0 0011 FYX=0.0 0012 FYX=0.0 0013 FYZ=0.0 0014 YELIPS=0.0 0015 RETURN 0017 Z00 CONTINE	MG (90) .	XLC_(90)	· 74CL(90)	COMF 1X59	
2 NUCL 1(90)	* (06)8HWZ	XYMHB(90)	. YMHB(90)	COMP TX60	0
3 ZUCL1(90) .  C ZC=(ZUCL1(J)+ZLCL1(J))/2.0  0009		MHB7	. MHBY .	COMF IX61	_
C ZC=(ZUCLJ(J)+ZLCLI(J))/2.0  0008	ZUG. 1P(90).	ZLQ_1(90)	. ZCIP(90).	COMF 1X62	~
C ZC=(ZUCL)(J)+ZLCLI(J))/2.6 0009	ZMHB IP (90).	YMHB1(90)	. WHRIP(90)	COMF 1X63	
CC=(ZUCLT(J)+ZLCLT(J))/2.( 0009				ELIPSE	•
C 1F(YMHB1(J), GT,0,0) GT TO FNX=0,0 0011 FNX=0,0 0012 FNX=0,0 0013 FNZ=0,0 2ELIPS=0,0 ZELIPS=ZMHB1(J) 0016 RETURN 0017 200 CMT1MJE				ELTP SE	0
0009 IF (YMHBI(J), GT, 0, 0, 0 TO				EL IPSE 10	0
0011 0012 0013 0014 0015 0017				EL 19 E11	-
0012 0013 0014 0015 0017 200				FLIP E12	0
0013 0014 0015 0016 0017 200				EL. 19 SE 13	
0015 0015 0016 0017 200				ELIPSE14	
0015 0016 0017 200				ELIPSE15	10
0016 200				EL IP E16	9
0017 200				ELIPSE17	_
				ELIPSE18	00
				EL IP 9E19	
C DETERMINE UPPERALOWER ELLIPSE SWITCH LOCATION	TTCH LOCA	ATION		ELIPSE20	
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DATE 77.295/16.00.25	
ELIPSE 05/360 FORTRAN H EXTENDED	ESSTEMALINESVRBAZC  FF (TERRICK, 617, 6,0) 60 TO 220  FF (TERRICK, 617, 6,0) 60 TO 220  FF (TERRICK, 617, 2,240) 61 TO 220  FF (TERRICK, 617, 2,240) 61 TO 220  FF (TERRICK, 617, 2,240) 70 TO 240  CONTINUE  FF (TERRICK, 617, 2,241) 5WT=1,0)  FF (TERRICK, 617, 2,
(SEPT 76)	
2.2	S S S S S S S S S S S S S S S S S S S
LEVEL	

ADPTIONS IN EFFECT MANE (MAIN) OPTIMIZE(2) LINECOLNT(55) SIZE (MAX) AUTOBBL(NONE)

66. PROGRAM SIZE =

SOURCE STATEMENTS =

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1406. SURPROGRAM NAME =ELIPSE

DATE 77.295/16.00.25

OS/360 FORTRAN H EXTENDED

ELIPSE

LEVEL 2.2 (SEPT 76)

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

152K BYTES OF CORE NOT USED

REQUESTED OPTIONS OPTERS , NOWAP

SIMPLE BRDY INPUT  SE	ISM	2000		SLERGITT	RILITINE OUTK	*					OUTK	2	
COMMEN MODOL / WINGE - STAIL   MBIN(2)   MOSE   MOS				CENEBAY	2000		2 000 5 000	TIME YOUR			OUIK	n •	
COMMICH   BODDY   NAVERE   NTAIL   NEWLY   BODY   NAVERE   NTAIL   NEWLY   BODY   NAVER   NEWLY   BODY   NAVER   NEWLY   NAVER   NEWLY   NAVER   NAV			, ,	- SENENA	וב ארוויי		ALM SIMPLE	1000			OUTK		
1	ISN	5000					NO SE	XTAIL	. NB IN(2) .	XBIN(2,35).		2	
Charge (90)   Charles   Nabres (90)   Nat (15)				100 100			NBODS	JBUP(2)	. JBDN(2) .	JNOSE .	MODA	3	
CTEL(15)   CTEL(15)   CTEL(15)   CTEL(15)				2			STAIL .	ALPHAB	. NBPTS(90) .	R(90)	A008	•	
## GFM(15) GM(15) APL(15) APL(15) GML(15) GMML(15)				n			KBMX(90)	CIN	· CMX	AFK(15) .	BUDA	2	
### CCL(15)				•			BFK(15)	GK(15)	. AFL(15) .	BFL(15) .	HODA	•	
COMMON   DODUZ   FREE   COLUED   COLUED   COLUED							GEL(15)	ABL(15)	, 88L(15) .	CBL(15) .	RODA	7	
The control of the				•			ACL(2)	BCL(2)	· CCL(2)	BTYPE .	BODA	8	
B							XRBU(90)	XRBL(90)	. DZRBU(90) .	DZRBL(90) .	CHENI		
COMMON   BODV2   FX(130,90)   F7(130,90)				•			NP.BU	NRRL	. YRB	298U .	NOOB	10	
COMMON   BODDY   FY(130,90)				•			ZPRL	KBMXX(30)	. JNOSEX .	STATLX .	BODY	11	
COMMON   BODV2   FX(30,90)   FY(30,90)   FZ(30,90)				4			RB IN(2,35)	XNOSEX	. XTAICK .	Y08	FIXCV	•	
KBOD(30, 90)   LBOK(20,90)   LBOK(20,90)	ISN	4000		COMMON	FBODY2		FX(30,90)	FY(30.90)	. FZ(30,90)		COMF 1X	123	
2				-			KBCD (30.90)		. LBU(20,90).			124	
### CTMWTF! / BGDV3 / KEMAXX   LLBL   LLBU    CTMWTF! / BGDV3 / KEMAXX   LLBL   LLBU    KRS				2			NBPT SX (30)					(25	
COMMUNA / BODV3 / KBMAX (LLBL CTMMTE / LLBL CTMMTM / BODVB (LlBL CTMMTM / BODVB C / BUD (SALPH(30)) (BCCUX (20,30)) (CDMMTM / BODVB C / BUD (SALPH(30)) (BCCUX (20,30)) (CDMMTM / BODVB C / BUD (SALPH(30)) (BCCUX (CDM CTMMTE / BODVB C / BUD (SALPH(30)) (BCCUX (CDM CTMMTE / BODVB C / BUD (SALPH(30)) (BCCUX (CDM CTMMTE / BODVB C / BUD (SO)) (CDM CTM CTM CTM CTM CTM CTM CTM CTM CTM CT							LBUX (20.30)				COMF IX	126	
COMMUTN / RODV3 / KGMAX , KRMAXX , LLRL , LLBU , KRMAXX , LLBL , LLBU , KRM				•			FYX(20.30)				COMP	127	
1	ISN	5000			FRODY3		KBMAX		. LIBL	LEU .	BODY	18	
### RECLES   PRECLES   PRECLES   PRECLES    ### PROUNT   PROPUE   PRECLES   PRECLES    ### SALPH (90)   SALPH (30)    ### SALPH (90)   SALPH (30)    ### SALPH (90)   SALPH (30)   SALPH (10)    ### SALPH (90)   SALPH (90)   SALCH (90)   SALCH (90)    ### SALPH (90)   SALPH (90)   SALCH (90)   SALCH (90)    ### SALPH (90)   SALPH (90)   SALCH (90)   SALCH (90)    ### SALPH (90)   SALPH (90)   SALCH (90)   SALCH (90)    ### SALPH (90)   SALPH (90)   SALCH (90)   SALCH (90)    ### SALPH (90)   SALPH (90)   SALPH (90)   SALCH (90)   SALCH (90)    ### SALPH (90)							LRX.	LLBUX	. PBCU (30.90)		COMP BX	620	
### SALPH(90)   SALPH(90)   SALPH(10)    COMMON   BODYBC   18LD   SALPH(10)    COMMON   BODYBC   18LD   SALPH(10)    COMMON   BODYW   XUCI.(90)   XCI.(90)   XCI.(90)   XCI.(90)    COMMON   BODYW   XUCI.(90)   XCI.(90)   XCI.(90)   XCI.(100)    MUCI   MUCI   MICI   MICI   MICI   MIRES   MICI   MICI    2				. ~			KBS	PBCL (30, 90)			COMP	(30	
SALPH(90)   SALPHX(30)							RBCUX (20,30	2		•	COMP !X	(31	
5 SALPH(90) SALPHX(30) COMMON / BODYBC / IBUD   IBLD   IBSIDE   ETABU(10)   1				•			DRBCU	DARCL	. DRRCUX .		COMF	(32	
COMMON / RODY6 / IBUD   IBLD   IBSTDE   ETABU(10)				2			SALPH(90)	. SALPHX (30)			COMP TX	(33	
1	ISN	9000		COMMUNI	PODYB	10	1800	. IBLD	. IBSIDE .	ETABU(10) .	COMF 1X	34	
COMMON / RODV4 / XUCL(90) - ZUCL(90) - XLCL(90) - ZLCL(90) - XLCL(90) - XLCL(							ETABL(10)	ZB00(20)	. NRBS .	XRBS(100)	COMF 13	35	
1 XZWHB(90) . ZMHB(90) . XYMHB(90) . YWHB(90) . YWHB(90) . YWHB(90) . ZUCL1(90) . ZUCL1(90	ISN	4000		COMMON	PODA4	-	(06) Dax	(06) DAZ	. XLCL(90) .	2LCL(90) .	COMP IX	65	
2 ZUGLI(90) ; ZUGLI(90) ; ZLCI(90) ; ZLCIP(90) ; ZLCIP				1			XZMHB(90)	(06) SHING	. XYMHB(90) .	· (06)8HM	COME !	091	
3 ZUGLI(90) . ZUGLIP(90) . 7LCLI(90) . 7LCLIP(90) . 7LCLI				2			NUC.	י אנט	· MHBZ ·	MHBY .	COMF IX	191	
4 COMMON / INTER / X1(90) - ZMHBIP(90) - YMHBIP(90) - YMHBIP(90) - ZMHBIP(90) - ZMHBIP(90) - ZMIN(90) - ZMIN(9				3			ZUG-1(90)	ZUG. 1P(90)		ACL 1P(90).		29	
COMMON / INTER / X1(90) - ETA(30) - XT(20) - XIN(90) - X							ZMR1(90)	, ZMHBIP (90)		WHRIP (90)	COMF 13	163	
1	ISN	9000		COMMON	INTER		x1690)	, ETA(30)	. ZT(20) .	* (06)NIX	INTER	2	
2 ETAC(30) ETAR(30) COEU COEL 3 ZCWU ZLWL ZRWL ZRWL 4 PDUM(30) EDUM(30) XMIN XMAX 5 YMAX ZWYL YMIN YMAX 6 ZLWU ZPWI ZPWI 1 ZLWU ZPWI LMAX LMAX KTMI 1 XMTP KTPP XTTPI JWLE LWINGU JWLE 2 JWTE JTE(30) LWINGL LE(30) JWLE 3 JWAXI KWAXI LMAXI KROOT 4 JDI 6 COMMON FLAGS / IDISK SOLV WRCPRT BRODY BRODY							X1L(90)	, XIC(90)	. XIR(90) .	ETAL(30) .	INTER	3	
3 ZCW				2			ETAC(30)	ETAR(30)	· COEO •	COEL .	INTER	•	
4 POUM(30) - EDUM(30) - XMIN - XMAX				e e			ZCW.	י אע	. ZRVI	ZCVL.	INTER	s	
5 YPAX . ZMAX . YMIN . ZMIN .							PDUM(30)	EDUM(30)	. XMIN .	XMAX .	INTER	¢	
6 COMMON / INDEX / JMAX				2			WAX .	ZHAX .	. WIN .	MIN.	PNTER		
COMMON / INDEX / JMAX , KMAX , LMAX , KTM1 ,   1				•			Z.W.	INGZ '			INTER	•	
1 KTIP KTIP JULE JULE . JE(30) . 2 JUNTE . JE(30) . LUINGL . LUINGU . 3 JUNXI . KMAXI . LUAXI . KROOT . 4 JOI . 1 SOLV . WRCPRT . BRCPRT . BRDV .	ISN	6000		COMMON			SHAX	, KMAX	. LMAX .	KTM1	INDEX	2	
2 JWTE . JTE(30) . LWINGL . LWINGU . 3 JMAXI . KWAXI . LWAXI . KROOT . 4 JDI . SOLY . ISAVE . IPLOT . WSHINT . 1 SOLV . WBCPRT . BBCPRT . BODY .				-			KTTP .	KTIP1	. JALE .	JEE (30)	INDEX	3	
3 JMAXI . KMAXI . LMAXI . KROOT				2			SWIE	, STE(30)	. LWING	LWINGU .	INDEX	•	
COMMON / FLAGS / IDISK , ISAVE , IPLOT , MSHINT ,				m			MAX!	KMAX!	. CMAX!	KORDOT .	COMF		
COMMON / FLAGS / IDISK . ISAVE . IPLOT . WEHINT .				•			101		2 Contract of the Contract of		INDEX	ç	
. WBCPRT , BBCPRT , BODY .	ISN	00 10		COMMUNE	FLAGS		TOTSK	. ISAVE	. IPLOT .	MSHINT .	FLAGS	2	
							SOLV	WECPRT	. BBCPRT .	BUDY .	FLAGS	B	

LEVEL 2.2	2.2	(SEPT 76)	161	OUIK	S.	360	05/360 FORTRAN H EXTENDED	=	EXTENDED			DATE 77	8	DATE 77.205/16.00.5
					EXTHSH		REMESH		IMAPR		WAW	. INPTX	×	~
					IBLAND		IVISC		ITWIST		FOILT	. PNPTX	×	3
			-	•	MIGDEL		AXISYM		AREA		IBLOUT	INPTX	1 X	
ISN	ISN 0011			LOGICAL	IDISK		ISAVE		PLOT		HSHINT	. COMF IX	FIX	•
					SOLV		MCPRT		BBCPRT		PODY	. COM	COMP IX	9
				2	FCR		ISPAN		IF INR		ICRUDA	. COM	COMF TX	•
					EXTWSH		REMESH		IMAPP		YAW	· CO	COMF IX	1
					IBUM		IVISC		ITHIST		FOILT	· COM	COMP PX	8
					IBODIN		AXISYM		AREA		IBLOUT	COM	COMP IX	•
ISN	00 12			DIMENSION	DCR1(30)		DCBL(30)		0008(30)			FIX	FIXELP17	17
ISN	-79			DATA PI /3-141592654/	2654/							OUTK		12
ISN				DIST(V1.V2.Z1.Z2)=50FT((V1-V2)**2+(Z1-72)**2)	=SOPT((Y)	-Y21*	*2+(71-72	*	12)			FIX	FIXELPIA	•
		v										OUTK		13
		v		SET VALUES OF INDICES	ID ICES							OUTK	*	•
		v										OUTK		15
ISN	00 15			MRRU=JMAX								OUTK		91
ISN				IBUD=KBS								OUTK		11
ISN	0017			NRBL=JMAX								OUTK		16
ISN				TBLD=KRS								OUIK		10
ISN	0019	/		NRBS=JMAX								OUTK		20
ISN	0050			TRS TOF = LBU-LLBL+1								OUIK		21
		u										OUTR		22
ISN	1200			DO 100 J=1.JMAX								OUTK		23
ISN				XPBU(J)=X IN(J)								OUIK		24
ISN				XRBL (J)=XIN(J)								OUTK		25
ISN	00 24		100	XRBS(J)=XIN(J)								OUTK		24
		v										OUTE		22
ISN				DO 110 K=1,KBS								OUTK		22
ISN												OUTK		2
ISN	0027		110	ETABL(K)=ETA(K)								OUIK		30
1		v					,					OUTK		31
ISN												OUTK		32
ISN	00 50		120	ZBOD (L)=77(L+LLBL-1)	-10							OUTK		33
		v										OUTK		34
		u		TRANSFER BODY LINE TO GRID. AND GET SLOPE	INF TO GRI	D. AN	D GET SLO	PE				OUIK		35
		U										OUTK		36
ISN					XUCL. ZUCL	Y WY	.XIN.ZUG	-	2VQ_1P)			OUIK		37
ISN					יארטריעה,	XV	.XIN.ZLQ	-	2CC.1P)			OUTK		36
ISN					WZ SHIZX	3.54	MZ.NIX.X	181	ZMHBIP)			001K		0.
ISI				CALL DATION (MIEST STATES THES JAMAS XIN THEIR SYMHEIP)	X YMPES OF ME		X . X IN . Y M	181	VMHBIP)			OUIK	*	
ISN	0034	•		FC.NOT.BBCPRT) GO TO 144	50 TO 144							FIX	FIXEIPIO	0
				WOTTE TATEBOOK ATEN WALLIES OF BODY 1 1MES	TED WALLIE	8	DOW - PAIES					XI	FIXETPE	9 :
				THE THEFT	בה אשרהרים	•	DO LINES					***	TXELDE	2 2
ISN	0036	,		WRITE(6,320)								FIX	FIXELDES	
ISN				DO 142 J=1. JMAX								FIX	FIXFIPSA	
ISN				WRITE(6,330) J. XIN(J), ZUCLI(J), ZUCLIP(J), ZLCLIP(J),	IN(J).ZUCL	1631	ZUCLIP(J)	20	CLI (1) . Z	2	TP (3) .	FIX	FIXELPSE	
				1 ZHHBI (J) .ZHHBIP(J) .YMHBI (J) .YMHBIP(J)	13) . YMHB1(	HY. (C	HB IP (J)					FIX	FIXE LP26	9
ISN	0039		142	CONTINUE								FIX	FIXEUP27	
ISN	0040		:										FIXEUP28	
ISN	0041		320	FORMAT(1H1/10X,36HBOOW LINES INTERPOLATED TO FINE GRID //.4X,1HJ,	SHBOOM LIN	ES IN	TERPOLATE	٥	TO FINE G	110	//·*x.1		FIXE LP29	•
				14x, 4HX IN.7X, 5HZUCL 1.4X, 6HZUCL IP, 5X, 5HZLCL I, 4X, 6HZLCL IP, 5X,	CL 1.4X .6HZ	JEL 1P	.5X . SHZ LC	7	** X . SHZLC	1	•5X•		FIXELP30	9
				2 SHZMHBI .4X .6HZMHBIP .5X . SHYMHBI .4X .6HYMHBIP //)	18 IP .5X . SH	VINTER I	**X*SHYIN	5	(// 0			FIX	FIXELP31	1

LEWEL 2.2 (SEPT 76)   QUIK   DS/360 FORTRAN H EXTENDED   DATE 77.295/16.00.57																					
2.2 (SEP) (0.093 (0.094	DATE 77-295/16-00-57							T									OUPK			QUIK 100	
2.2 (SEP) (0.093 (0.094	FORTRAN H EXTENDED		NY.FNZ)	NY.FNZ)	6		IPS.ZEL IPS. FNXU. FNY . FNZ )	IPS.ZEL IPS.FNXL.FNY.FNZ)					S.ZEL IPS.FNXS.FNY.FNZ!				TION /5X+1HJ+5X+3HXIN+5X+				
2.2 (SEP) (S	092/30	-14LBL))/2.0	A.YI.ZI.FNX.F	B. 72 . 72 . FNX . F	72.21.72)/(A-		U(K) .ZRBU.YEL	L(K) . ZPBL . YEL	(K)*FNXU	(K)SFNXL			ZROD (L) . WELIP	)*FNXS			AREA DISTRIBU	ALPHES) /1	.2X,2F15.41		
2.2 (SEP) (S	QUIK	B=(2T(IALBL)+2T(I-	CALL ELIPSE ( J.YOB.	CALL ELIPSE ( J.YOB.	DCBS (1+1)=D1ST(Y1.	DO 160 K=1,KRS	CALL ELIPSE ( J.ETABL	CALL ELIPSE ( J.ETARI	PBCU (20+K+3) =-DCBU	RBCL (20+K . J) =+0CBL	CONT INCE	DO 190 L=1.18SIDE	CALL ELIPSE ( J.YRB.	FY(204.3)=-0CBS(L	CONTINUE	RETURN	FORMAT ( 1H1/10X+17H)	8X . SHSAREL . 9X . 8HS	FUPMAT(4X,12,F10.4	CNO	
2.2 (SEP) (S	161				155						160			190	200		300	2	310		
2.2 00000000000000000000000000000000000	(SEPT																				
	2.5	260	160	9600	9600	160	960	6600	1100	101	201	1103	101	105	9010	101	8010		6010	0110	
					-	98			100	-			100			-	-			13	

MOPTIONS IN EFFECTANAME (MAIN) OPTIMIZE(2) LINECORNT(55) SIZE(MAX) AUTODRILINONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

4048, SUBPROGRAM NAME = OUTK

\*STATISTICS\* SOUPCE STATEMENTS = 109, PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

132K BYTES OF CORE NOT USED

05/360 FORTRAN H EXTENDED

LEVEL 2.2 (SEPT 76)

REQUESTED OPTIONS OPT(2) , NOMAP

	DOM
	FLAGET
	VERM
	NOANSF
	ALC
ONE)	EBCDIC NOLIST NODECK OBJECT NOMAP NOFTPMAT GOSTWT NOXREF ALC NOANSF TERM FLAG(!) DUMP
IN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOOBL(NONE)	GUSTINT
(MAX) AU	OFTOPMAT
S) SIZE	NOMAP A
COUNT ( S	DBJECT
2) LINE	NODECK
TIMIZE	NOLIST
•	EBCDIC
NAMEIM	SOURCE
EFFECT	
TONS IN	
8	

C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FORMON / INTER / STRIP  S S STAN NASH SCRUGGS THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THREE DIM - BLL- D C FOR THE NASH SCRUGGS THREE DIM - BLL- D C FOR THREE DIM - BLL- D C FORMON / INTER / STRIP D C FOR THREE DIM - BLL- D C FORMON / INTER / STRIP D C FOR THREE DIM - BLL- D C FORMON / INTER / STRIP D C FOR THREE DIM - BLL- D C FORMON / INTER / STRIP D C FOR THREE DIM - BLL- D C FORMON / INTER / STRIP D C FORMON / WING / YTEOTO D C FOR THREE DIM - BLL- D C FORMON / WING / YTEOTO D C FOR THREE DIM - BLL- D C FORMON / WING / YTEOTO D C FOR THREE D	שיפעית זער סרות					BLOUT 2
0 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						BLOUT 4
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	**********	*****				RLOUT 5
	MCH CARDS A	S INPUT				BLOUT 6
	SUGGS THPEE	DIM. B.L.				PLOUT 7
	. FROM RESULTS OF	LTS OF				BLOUT A
COMMON / VSCINP /  1 2 3 4 LDGICAL COMMON / INTER / 2 3 4 COMMON / INDEX / 1 2 3 4 COMMON / PARM / 1 2 3 4 COMMON / WING / 1 2 3 4 5 6 6 7 7 8 8	3-D TRANSON	IC CUDE				BLOUT 9
COMMON / VSCINP /  LD61CAL COMMON / INTER /  COMMON / INDEX /  COMMON / INDEX /  1 2 3 4 COMMON / INDEX /  1 2 3 4 COMMON / INDEX /  1 2 3 4 COMMON / WING /  1 2 5 6 6 7 7 8 8						BLOUT 10
COMMON / VSCINP / 12 2 3 4 LDG ICAL COMMON / INTER / 13 4 4 COMMON / INDEX / 13 2 3 4 4 COMMON / WING / COMMON	**********	*****				PLOUT 11
1 LDG.ICAL COMMON / INTER / COMMON / INDEX / COMMON / INDEX / COMMON / PARM / COMMON / WING /	/ IVSMAX	· ISTOP	. IVITER	· IVC	IVCON .	INPT 13
2 LDGICAL COMMON / INTER / 2 3 4 COMMON / INDEX / 1 2 3 4 COMMON / PARM / 1 1 2 3 4 COMMON / WING / 1 2 3 4 5 6 6 6 7 7 7 8	EPSVIS	*	. TOUTP	. 151	ISTEPO .	INDTX 14
1.DG.ICAL COMMON / INTER / 3 4 5 6 COMMON / INDEX / 1 2 3 4 COMMON / PARM / 1 1 2 3 4 4 COMMON / WING / 1 1 2 3 4 4 4 6 6 6 6 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8	ITRANS	. XTRNT	. XTRNB	51 .	TINDI	TNPTX 15
LDGICAL COMMON / INTER / 2 3 6 COMMON / INDEX / 1 2 3 4 COMMON / PARM / 1 2 3 4 COMMON / PARM / 1 2 3 4 4 6 6 7 8 8	KSMTHX	. KZSMTH	. KENDS	8	CHISWP	CY3FX 1
LDGICAL COMMON / INTER /  2 3 4 5 6 COMMON / INDEX /  1 2 3 4 COMMON / PARM /  1 2 3 4 COMMON / PARM /  1 2 3 4 6 6 7 7 8 8	KWPITE	. LWRITE				CVRFX 2
COMMON / INTER /  2 3 4 5 6 COMMON / INDEX /  2 3 4 COMMON / PARM /  1 2 3 4 5 6 6 6 7	ISTOP					CVSEX
2 5 6 COMMON / INDEX / 1 2 3 4 COMMON / WING / 1 1 2 3 4 5 REAL COMMON / WING / 1 2 3 4 5 8 6 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9		. FTA(30)	. 77(20)	ATX .	XINCOOL	TATED 2
2 COMMON / INDEX / COMMON / INDEX / 1 2 2 3 4 4 COMMON / WING / 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		. XTC(90)	XIB(OO)	1	FTA! (30)	INTED
COMMON / INDEX / COMMON / PARM / TEAL COMMON / PARM / TOMMON / WING / TOMMON /	ETAC (30)	ETAB(30)	COEN			PNTED
COMMON / INDEX /  COMMON / INDEX /  COMMON / PARM /  REAL  COMMON / WING /  1  2  3  4  6  6  7  7	20.00		200	-		-
S COMMON / INDEX / 2 3 4 COMMON / WING / 1 1 1 2 3 4 5 REAL COMMON / WING / 1 2 3 4 5 8 6 6 7	25.00		7XX7		•	CHICK
5 6 COMMON / INDEX / 1 2 3 4 4 COMMON / PARM / 1 2 2 3 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	POUM (30)	. EDUM(30)	NIWX .	. XMAX	. ×	INTER 6
COMMON / INDEX /  2 3 4 COMMON / PARM /  1 2 3 REAL COMMON / WING /  1 2 4 6 6 7 7	YMAX	· ZMAX	. VMIN	· ZMIN	. z	INTER 7
COMMON / INDEX /  2 3 4 COMMON / PARM /  1 2 3 4 5 REAL COMMON / WING /  1 2 3 4 5 6 6 6 7 7	ZW	. ZPWU				PNTER 8
2 3 4 COMMON / PARM / 1 8 8 REAL COMMON / WING / 7 7	/ JMAX	. KMAX	. LMAX	. KTM1		INDEX 2
2 4 COMMON / PARM / 1 8 8 8 7 1 1 1 1 1 1 1 1 1 1 1 1 1	KTIP	. KTIPI	. JWLE	. 26	A.E(30)	INDEX 3
3 1 2 3 4 5 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JVTE	. JTE(30)	. LWING		LWINGU .	INDEX 4
COMMON / PARM / 13 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	SMAX 1	. KMAX1	. LMAX1	. KR	KRDOT .	COMF 1X 1
COMMON / PARM / 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	145					INDEX 6
S REAL COMMON / WING / 3 3 4 4 5 6 6	A1	. A2	. A3	*		PARM 2
2 SEAL COMMON / WING / 1 2 3 4 5 6 6 7	AS	. GAMMA	. MACHINO	8		PARM 3
SEAL COMMON / WING / 1 2 3 4 4 5 6 6 7	62	. EMFXP(2)	· CK1(30)	. 0	CK2(30)	PARM 4
REAL COMMON / WING / 1 2 3 4 4 5 5 6 6 7 7	CK3(30)	· CK4(30)	• CK51(30)		•	COMF 1X10
REAL COMMON / WING / 1 2 3 4 4 5 6 6 7 7	CK52(30.90)	0)	· CK1X(30)	. 0	CK2X(30)	COMF 1X11
REAL COMMON / WING / 1 2 3 3 4 4 5 6 6 7 7	BLPL	. MCDE				COMF 1X12
COMMON / WING / 2 2 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	MACHND					COMP EXT3
- a m 4 m o h e o 4	YROOT	. XLER	. XTER	. WIP		WING 2
0 m 4 m 0 r α σ <	XLET	. XTET	. SREF	. SWE	SWEEP .	INPTX 7
n 4 n ⊕ ≻ ⊕ o <	MEI	. ME1(10)	. XLE1(10)	•	STRUE .	INDTX 8
4 W O P & D <	NTEI	. YTE1(10)	. XTE1(10)	•	SXPOS	INPTX 9
v o b o d <	CROOT	. SSPAN	. THICK(11)	•	ZWNGWL .	INPT X 10
<b>0</b>	NPAN	. WP(11)	. THE TP(11)		MTWST .	ATRFORES
N X X Z	VTINST(11)	. INUX(11)	· INCX (11)		JE(180.11).	ATPFORES
x × z	ZF(180,11)	-	MOMX .	. X.	X.E(30)	INPTX 11
× 2	XLEW(30)	. CORD(30)	. CORDW(30)		CORDIN(11).	WING 10
•	XTE(30)	. RFACT	. CMEAN		XTEW (30) .	WING 11
	NSO	. NSI	• KX0(12)	· KX	KX1(12)	AIRFOILS
2	NX0(12)		· YX0(12-10)		WX1(12,10).	AIRFOIL9
•	XX0(12,10).			•	DXR1(12) .	AIRFOITO

		0		DXT0(12)		DXT1(12)		AL PHAW		MIPLE	AIRFOIL!	
				NTIPXI		X FWX (30)		XTEWX(30)		CORDX	CHORD	
				247		aux.		XI FWP( 30 )		XTEMPIAOL	VSCEX3	
						-		1001				
											VSCF XS Z	
ISN 0010		COMMON	/ WINGBC /	י שו	•	ZRIMU		TWIST(30)			COMF IXA2	
				WBCL (30.90)	6			WBCU (30,90)	=	A STATE OF THE PARTY OF THE PAR	COMF 1X43	
15N 0011		COMMON	/ LABEL /	TITE(20)							18W 2	
15N 0012			/ NSRI /	XCATA (30.90)	600			ZOCU (30.90)	-		COMF 1X65	
-				100 021 002	5			100 02 1100		100.02710		
		- (		1000	2			106000		100000		
						SW188 1 1 1 2 2		SHALL STATE		NEW TOWNSHIP OF	THE TANK	
<b>ISN</b> 0013		NOMMON	COMMON / BLCOM /	11		TOTTER	•	TOWE		PUNCH	BLCOM 2	
		-		KSMTH		CONV		LTRN		SCALE	PMSFX 6	
		2		PRES		TEMP		THOUT			BLCOM 4	
TEN ON 14		COMMON	COMMON / FLAGS /	TOPSK		TSAVE		10.01		MSHINT	FLAGS 2	
				7 805		TOOL		PACPET		BOOK	FIAGE	
				-		Tenan		16140		200100		
				-	•	NA SELECTION OF THE PERSON OF		200		2000		
		3		EXTENSE		ME UT		IMAM			. INDIX	
				IBUMP	•	IVISC		ITWIST	•	IF01LT	. INPTX 3	
		2		IBODIN	•	AXISYM		AREA		IBLOUT	INPTX A	
15N 0015		LDGICAL		IDISK		TSAVE	•	1PLOT		MSHINT	. COMP IX 4	
		-		SOLV		WBCPRT		BRCPRT		RODY	COMP EX 5	
		•		FCR		ISPAN		IF INP		ICRUDR	COMF IX 6	
				FXTMSH		BEWESH .		TMAPP		YAW	COME TX 7	
				TRIME		1715		TVIST		TEOLIT	COMPTX	
				Tamp1		AVICAN		ADEA		Talout	COME TV O	
-		-	*******			1007						
15N 0010		THE PARTY	COMMON ALEVIA	DATA SO	•	וארו אם		ADOM (90)		KDOMZ (90)	LEVIA	
		-		XD(143( 90 )		XDOM4 (90)	•	XDUMS(90)	•		LEVIX 3	
		2		XDUME ( 2000 )							LEV!X 4	
1SN 0017		COMMON	COMMON / YANDPT /	/ K1X	•	KZX		K3X		KAX	. COMF 1X87	
		-		KSX	•	K6X		K7X		KBX	COMP IXER	
		2		KPIX	•	KMIX					COMF IXES	
TSN OOTR		DIMENST	DIMENSION CPSP(30)								PLOUT 20	
	-										BI OUT 21	
			TATE DOOR AT	THE AD INTERBO ATTON SINCTION	2							
	,		-									
-				100 000		274100	-				3	
150 MSI			PETERARE	PLINTLY STEP ADAR SALJE(A-AR)/IAL-AR)+IAL-ARI	141	-4K)+12L-	7	. CH				
	Cassa											
	C====	== PREPAR	PREPARATION LOOPS	S								
1SN 0020		70.	RAD=57.2957795130823	0823							BLOUT 27	
	****		INITIALIZE PUNCHED VALUES	ED VALUES							BLOUT 28	
ISN 0021		MZ=21									BLOUT 29	
ISN 0022		MCASE=1									BLOUT 30	
		NBC0=3									BLOUT 31	
		NWR I VE=1	1								PLOUT 32	
		NREAD=0									REDUT 33	
15N 0026		CRTL AN=0.05	50-0								BLOUT 34	
15N 0027		CRTTHL=.004	*000								BLOUT 35	
ISN 0028	1 800	_	FORMAT ( / 20 X - 10 15 / )	2/1							BLOUT 36	
	006	100	FORMAT(1X.10E12.5)	23							BLOUT 37	
	v										BLOUTX 3	
15N 0030		PRES-PR	PRES=PRES/144.0								BLOUTX 8	
15N 0031		SCALF = CMF AN	ME AN								BLOUTX 9	
											RLOUTX10	

LE	LEVEL	2.2	(SEPT	16)	BLOUT 05/360 FORTRAN H EXTENDED	DATE 77.295/16.01.49
			*5	:		BLOUT 38
			·		FIND MINUMUM NUMBER OF CHOROWISE POINTS FOR INTERPOLATION	BLOUT 39
			•	***		BLOUT 40
	ISN	0032			KSMALL=KTM1	FIXCVIPO
		0033			NPTSMN=JTE(KSMALL)-JLE(KSMALL)+1	BLOUT 42
		0034			00 70 JE1 ,NPTSMN	FIXC VI30
		00 35		20	XDUM(J)=XQUTA(KSMALL J)	FIXCMISI
		96 00			NPTS=NPTSINN + 1	BLOUT 49
			t	***		BLOUT 50
			v		INTERPOLATE FOR SAME CHORDWISE POINTS AT ALL SPAN STATIONS	BLOUT 51
			*5	***		BLOUT 52
	ISN	0037			DO 30 K=K7X+K8X	FIXCY132
	ISN	0038			JBEND=JF (K) -JLE (K)	BLOUT 54
	ISN	0036		1	BSTRT=1	BLOUT 55
		0040			<b>81=1</b>	BLOUTK!!
		0041			JEE NO = JBE NO + 1	FIXCVISS
		0045			3	FIXC VISA
		0043		10000	DO 31 JA=1.JBEND	FIXCMISS
		00			JAX=JLE(K)+JA-1	FIXCV136
		0042				FIXCHEST
		900				FIXCVI38
		0048				FIXCVI39
		0000		4 5 5		FIXCV140
		0052			IF(KQ.EQ.4) XDUM2(JA)=CPL(K.JAX)	FIXCYIAI
		0054		31	CONT INCE	FIXCY142
		900			CALL VINTER (XDUM3, XXXM.1 .NPTSMN.XDUM2, XDUM4,1, JBEND, 2,0)	FIXCY163
		9500			DO 32 JA=1,NPTSMN	FIXCVIAL
		0057				FIXCMAS
		90028				FIXCHI
		0000				FIXCHIEL
		2900				FIXCHIER
		1000			IT KNOEDOWN CHIKA JAKA = KUUMSI JAN	FIXCYIES
		900		1	CONT. INC.	FIXCVISO
	200	2000		1		FIXCHES!
		900				# Out 72
		0200			IF(YAV) KSTA=3	FIXCVISO
		0072			I D THE SOUT	FIXCVISA
nı	ISN	0073			F(YAN) KLPIN=2	FIXCVISA
		0075			KLPOUT=KLPIN+KSTA-1	FIXCVISS
		9400			IF( -NOT - YAW) GO TO 38	FIXCMS6
		84.00			DO 36 K=KLPIN•KLPOUT	F1XCV157
		6400		-	DO 36 J=1 NPTSMN	FIXCYISA
		00 80			JA=JLE(KSMALL)+J-1	FIXCV159
		0081			ODU(K,JA)=CPU(KTX,JA)	FIXCVI60
		0082			CPL(K,JA)=CPL(K7x,JA)	FIXCV161
		0083		38	CONT INCE	FIXCV162
	1	1000			NO 2 K#KLPIN.KLPOUT	FIXCY163
		9800		•	SWEEP=ATAN(XLEWP(K))	
		9800			AMACN=MACHNO*COS(SWEFP)	
		0087			FERM=10+(GAMMA-10)/20+AMACN##2	
	ISN	9800			POP IN=TERM**(GAMMA/(GAMMA-1.))	BLOUT 83
			*	*	DEFINITION OF STAGNATION PRESSURE	BLOUT 84

		Carlo Company of Comment of the Actual Company		A TIN
15N 0009		Control of the second of the s		
		INCATHENT NEAR THE LEADING FUGE		
15N 0090	•	CPMAXID=0.0		BLOUT 87
	B	CPMAXL=0.0		
	XMA	XMAXU=0.0		BLOUT 89
	XMA	XXAXE=0.0		PLOUT 90
	1	PHTMXU=0.0		BLOUT 91
15N 0095	THE	THTMXL=0.0		BLOUT 92
	JA=.	JA= JEE(KSMALL)		RLOUT 93
	. B.	JB= JTE(KSMALL)		BLOUT 94
	8	22 JEJA, JB		BLOUT 95
	- PK			
	X=X	K-KUMTAKESHALL . JX)		FIXCYIGA
				BLOUT SE
		FIND MAXIMUM UPPER SURFACE OF GPADIENT USING	GPADIENT USING STAGNATION PRESSURE	BLOUT 99
	*****		1	BLOUTIO
15N 0101		THE TA=(CPSP(K)-CPU(KoJ))/X		PLOUTI01
	IF C	IF (THETA-LT-THEMXU) GO TO 24		BLOUTIE2
	THE		•	BLOUTIOS
15N 0105	MAN MAN	WAXU=X	•	BLOUT104
				BLOUTIOS
		FIND MAXIMUM LOWER SURFACE CP GRADIENT USING	GRADIENT USING STAGNATION PRESSURE R	BLDU 7106
	C****			BLOUTIO7
15N 0106		THE TA=(CPSP(K)-CPL(K )) /X	•	BLOUTING
15N 0107	IFC	IFITHETA-LT-THTMXL) GO TO 22	•	BLOUTI09
	<b>F</b>	THTHAL =THETA		BLOUTITO
15W 0110	XHA	KHAXL=K		BLOUTIFI
	22 CON	CONT INLE		BLOUTITE
	8	DO 26 JEJA, JB	•	BLOUTER3
ISN 0113	SKE.	DK=J-JA+1		BLOUT114
ISN 0114		X=XUUTA(KSMALL.JX)		FIXCVI65
				BLOUTI16
	CLIN	LIMIT UPPER SURFACE OF GRADIENT TO MAXIMUM		BLOUTIIT
				BLOUTI18
	1			PLOUTI19
15N 0116		IF(X-LT.XMAXU .AND. CPU(K.J).GT.CPMAX) CPU(	CPU(K, J)=CPMAX B	BLOUTIZO
	****		60	BLOUTIZE
	C	LIMIT LOWER SURFACE OF GRADIENT TO MAXIMUM	8	BLOUTIZE
	****		•	BLOUT123
	1	CPHAX=-THTHXL *X + CPSP(K)		BLOUTI24
	IFC	KMAXL . AND. OPL(K.J).GT. CPMAX)	CPL(K, J)=CPMAX B	BLOUTI25
15N 0121	26 CON	CONT INCE	6	BLOUTI26
ISN 0122	2 CON	CONT INVE		BLOUT127
	Creese			BLOUT128
	v			BLOUTI29
	CSSSSS PUT	NON TUOS		BLOU7130
15N 0123		XOCLE=0.0	Control of the Contro	BLOUTISI
	Cesse Upp	UPPER SURFACE	6	BLOUT132
	v		•	BLOUTER
	LTRN=1		6	BLOUTKIS
	8	200 J=1.NPTSMN		PLOUTX14
1SN 0126		IF (XILTATKSHALL . J) . GT. XTRNB) GO TO 200	•	BLOUTKIS
				2000

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DATE 77.205/16.01.49
                                                                                                                                                                                                                             BLOUTK!9
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                                                                                                                                                                                                                                                                                    RLOUTIA9
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                                                      BLOUT133
                                                                     8LOU 7134
                                                                                   8LOU 1135
                                                                                                 9E110019
                                                                                                               BLOUT137
                                                                                                                            FIXC VI66
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                                                                                                                                                                                                  BLOUTIA3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BLOUTITE
                                                                                                                                                       WRITE(180UT,103) XLEW(K), ZLE(K), ETA(K), CORDW(K), THETA
                                                                                                                                                                 WRITE(180UT,104) XNGLE,(XQUTA(KSMALL,J), J=1,NPTSMN)
ZDCLE=0,5*(ZDCU(K,1)+ZOCL(K,1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WRITE(IBOUT, 103) XLEW(K), ZLE(K), ETA(K), CORDW(K), THETA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MRITE(IBNUT.104) XNCLE.(XOUTA(KSMALL.J), J=1.NPTSMN)
DS/360 FORTRAN H EXTENDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WRITE(180UT,104) ZOCLE,(ZOCL(K,J), J=1,NPTSMN)
                                                                                                                                                                                                  WRITE(IBOUT, 104) ZOCLE, (ZOCU(K, J), J=1,MPTSMN)
                                                                                                                                                                                                                                                                                                                               4 WRITE(180UT.104) CPSP(K), (CPU(K,J), J=JA,JB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 WRITE(INDUT, 104) CPSP(K), (CPL(K, J), J=JA, JB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WRITE(180UT . 101) NWR ITE . NREAD . IPUNCH . KSMTH
                                                                                                                                                                                                                                                                     WRITE( IBOUT , 101) NWR ITE, NREAD, IPUNCH, KSMTH
                                                                                                                                                                                                                                            MACHNO . SCALF , PRFS . TEMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MACHINO, SCALE, PRES, TEMP
                                                                                                                                                                                                                                                         RITE(1BOUT, 101) (LTRN, N=KLPIN, KLPOUT)
                                                                                                                                                                                                                                                                                                                                                                                                                  IF(XOUTA(KSMALL.J).GT.XTRNB) GO TO 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (LTIM.N=KLPIN.KLPOUT)
                                                                                                                                                                                                                                                                                    MRITE( IBOUT, 103) CONV.CRTLAM, CRTTBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WRITE(18017.103) CONV.CRTLAM.CRTTBL
                                                                                               WRITE(180UT.101) NBCO. TOTTER, 10PRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MRITE(180UT, 101) NBCO, INITER, ICPRE
                                                                                  NPTS.NZ.KSTA.1T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MRITE (IBOUT, 101) NPTS, NZ, KSTA, 1T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZOCLE=0.5*(ZOCU(K,1)+ZOCL(K,1))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WRITE(1800T, 105) MACHING, ALPHAN
                                                                                                                                                                                                                               MACHINO . ALPHAN
                                                      PRITE(180UT.100) TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WRITE(180UT, 100) TITLE
                                                                                                                                                                                                                                                                                                                 DO 4 K=KLPIN KLPOUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DO 6 K=KLPIN.KLPOUT
                                                                                                                            DO 3 K=KLPIN.KLPOUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DO 5 K=KLPIN,KLPOUT
                                                                                                               AIRFOIL ORDINATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AIRFOIL ORDINATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THETA=TWIST (K) *RAD
                                                                                                                                         THE TASTURY STORY
                                                                                                                                                                                                                                                                                                                                                                                                     DO 210 J=1, NPTSMN
                                                                                                                                                                                                                               WRITE(180UT, 105)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WRITE(180UT.101)
                                                                                                                                                                                                                                           WRITE( IBOUT , 103)
                                                                                  MRITE(180UT.101)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRITE(180UT, 103)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MRITE(180UT.121)
                                                                     MRITE(180UT.120)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WRITE ( 180UT , 102 )
                                                                                                                                                                                                                                                                                                 C++++ PRESSURF DATA
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BLOUT
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                           200 CONTINUE
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LEVEL 2.2	(SEPT 76)	192	BLOUT	08/360	05/360 FORTRAN H EXTENDED	DATE 77.295/16.01.49	PAGE
		C	***************************************	***************************************		BL001177	
15N 0171		REVINO	REVIND INCUT			FIXCYASE	
	0					BLOUTITE	
	9	Casses FORMATS	LTS			8L0U1179	
15N 0172		99 FURNAT	99 FORMATIZSH START OF UPPER SURFACE INPUT)	PER SURFA	CE INPUT)	BLOUTIRO	
15N 0173		100 FORMAT(20A4)	r(20 A4)			IBM 649	
15N 0174		101 FORWAT(2113)	(2113)			REDUTIE2	
		102 FURNAT	FORMATISANSTUP NO MIP	NO MORE CASES TO BE READ	D RE READ	F IXC VI72	
15N 0176		103 FORMAT	FORMAT(5F10.5)			BLOUTIE4	
15N 0177		104 FORMAT(7F10.6)	r(7F10.6)			BLOUTIRS	
		105 FOPMAT	TISX. & & HIGRUMMAN A	WES TRANS	105 FORMAT(5X, 44HGRUMMAN AMES TRANSONIC PRESSURE DISTRIBUTION .5X.	• 9LOUTK30	
		A 2HM=	A 2HM=,F10.5.				
		1 TH AL	TH ALPHA=.F10.5)			8LOUTIST	
15N 0179	•	111 FORMAT	111 FORMAT(29H START OF LINER SURFACE INPUT)	WER SURFA	CE INPUT)	SLOUTING	
ISN 0180		120 FORMAT	120 FORMAT (14H UPPER SURFACE)	ACE )		RL00 1189	
15N 0181		121 FORMAT	FORMAT(14H LOWER SURFACE)	CE)		BL0U7190	
ISN 0182	•	RETURN				RL007191	
15N 0183		END				SECOLTION S	
*OPTIONS IN	· EFFEC	OPTIONS IN EFFECT MANE (MAIN)		NECOUNT ( S	MPTIMIZE(2) LINECDANT(SE) SIZE(MAX) AUTODBL(NONE)		
*OPTIONS IN	· EFFE	*OPTIONS IN EFFECT*SOURCE EBCDI		OK DBJECT	C NOLIST NOBECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOAMSE TERM FLAGITI DUMP	ALC NOANSE TERM FLAG(1) DI	•
*STATISTICS*		SOURCE STATEMENTS =		182. PROGRAM SIZE	SIZE = 4750, SURPROSRAM NAME = BLOUT	AME = BLOUT	
*STATISTICS*	ON .S		DIAGNOSTICS GENERATED				

116K BYTES OF CORE NOT USED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

RECALESTED OPTIONS OPT(2) . NOMAP

	DUMP
	CE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTMI NOXREF ALC NOANSF TERM FLAG(I) DUMP
	TERM
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5000	COMMON LANGN	1 150 - 30 - 30	10	. Daki 130 .	1000			Cax I
	-	DJK2(30,90)	•	. DJK3(30.90)	106.0		8	COMP IXA6
	~	DJK4 (30,90)		. DJK5(30,90)	106.0		00 .	COMF 1X47
	3	DJK6(30,90)		. DJK7 (30.90)	106.0			COMF TXAB
	•	DJK8 (30,90)		. DJK9 (30,90)	(06.0		00 .	COMF 1X49
		DJK10 (30.90	0)	. DJK11(30.90	30.90		20	COMP IXSO
15N 0004	COMMON / INTER /	X1 (90)	. ETA(30)	. ZT(20)	•	XIN( 90)		INTER
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	•	PD(M(30)	. EDUM(30)	. XMIN	•	XMAX		INTER
		YMAX	· ZMAX	NIN.	•	MIN		INTER
	•	ZW	. Zeve				IN	INTER 6
15N 0005	COMMON / WINGBC /	2.M.	. ZPWU	. TWIST(30)	30) .		20	COMF 1X42
		WBCL (30,90)	•	. WBCU(30,90)	106.0		5	COMF IX43
9000	DIMENSION	WBC(30,90.2)	23				3	MURFX 25
2000	FOUT WAT FINCE	(WBC(1) - WBCI (1))	(11)				2	MIRFX 20
9000	COMMON / PARM /		. 42	. 43	•	1	A PA	PARM
			Course					MOVO
		9	. CAMMA	- MACHINE	•	30		
	N	3	. EMEXP(2)	· CK1(30)		CX2(30)	. PA	PARM
	m	CK3(30)	. CK4(30)	. CK51(30)	(0		00 .	COMF IX10
	•	CK52(30,90)		. CK1X(30)	. 10	CK2X(30)	00 .	COMF IXI
	•	BL.OL	. WCOE				5	COMP TX12
5000	BEAL	MACHIO					5	COME TXP
0010	COMMON / INDEX /	JMAX	- KMAX	. IMAX	•	KTM1	NA.	NOFX
		24.40					100	*
		4114	I LILL		•	200		NEX.
	2	ATE.	• JTE (30)	. LWING	•	LWINGU		INDEX
	3	JWAX 1	. KMAXI	. LMAXI	•	KROOT	00 .	COMP IX
	•	105					N.	NOEX
1100	COMMON / MURCOM /		. SHIFT	. MBSTRT	•	MBPRNT	00	COMF 1X74
0012	COMMON / VELOC /	UMK (30.50.2)	23)	. V(30.50.2).	0.23.		62	COMP IX71
		FMU(30.50.2)	23				02	COMF IX72
5100	TOWAY / VANDO	KIX	. K2X	. K3X	•	KAX	5	COMP TXR7
		KSX	. Kex	. K7X		KAX		COME IXAR
		7.00	*****			YOU		2001
		71	YIW.		-		9	COMP IXES
ISN 0014	COMMON / SCRACH /	MU(20.30.2)		. PULD (20.30.3)	0.30.	33	00 .	COMP 1X3
		VC2(20,30,2)	23	. vc(20,30.2)	30 .2)		8	COMF 1X38
15N 0015	COMMON / FLAGS /	IDISK	. ISAVE	. IPLOT	•	MSHINT	F.	FLAGS ?
		SOLV	. WBCPRT	. BBCPRT	•	PODY	F.	FLAGS 3
	2	201	. ISPAN	. IF INR	•	ICRUDE	. 18	INPTX
	. *	FXTMSH	BEWESH.	THAPR		YAY	NA .	THOTA
					•			
		IBOM	· IVISC	. ITWIST	•	FOILT		MPTX
	•	18001N	. AXISYM	. AREA	•	IBLOUT	7.	INDTX 4
ISN 0016	LOGICAL.	IDISK	. ISAVE	. IPLUT	•	MSHINT	00 .	COMP IX 4
		SOLV	. WECPRT	. BRCPRT	•	900V	00 .	COMF IX 5
	•	200		-				The same of
		***	- ISPAN	ANI AI	•	1CRIJOR	9	COMP IX 6

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PAGE																						
DATE 77.205/16.02.38	MURFX .7	PURFX &8	HURM ANG 7	18H 73	MUREX 49	18H 74	PURFX 50	18H 75	MIDEX 51	18M 76	MURFX 52	MURH ANTE	HURH ANTT	MURM ANTR	MURM ANTO		MURM ANS 3	HUPH MAA	HUPH ANRS	MURM ANS	MURM MR7	HURM ANEB
DATE																ER AT TONS!						
EXTENDED																IHI.5X,29HMURMAN COMPLIANT WALL DATA AT, 14, 11H ITERATIONS!	URFACE)	ACE)	FACE)	ACE)	URFACE)	
05/360 FORTRAN H EXTENDED	NETURN			244.)	.N.J+1.0)	247)	3+1.0)	246.1	NJ+1.1)	2*(1)	100					ANT WALL DAT	THE , A5, BH S	.A5.8H SURF	E .A5.8H SUR	.A5.8H SURF	THE . A5.8H S	
08/360	IIT-MESTRT . MERRNT ) . NE . 0) RETURN			244-11.WORD(	L) KTX KBX. 1	201-11.WORD (	*K7X *K8X . 1 . N.	2*L-11. WORD (	L) K7X.K8X.1	2*L-11. WORD (	*K7X*K8X*1.					URMAN COMPLE	-KI DATA ON	DATA ON THE	U DATA ON THE	DATA ON THE	WBC DATA ON	
MURMAN	F (MODELL-MISTRE)	WRITE (6.410) 17	DO 200 L=1.2	RITE(6,411) WORD(244-1),WORD(24L)	CALL POUT(UMK(1.1.L) KTX, KBX, 1.NJ+1.0)	MRITE(6,412) WORD(2*t-1),WORD(2*L)	CALL POUT (V(1.1.4) .K7X .K8X.1.NJ+1.0)	PITE(6,413) WORD(	CALL POUT (FMU(1.1.L) KTX.K8X.1.NJ+1.1)	WRITE(6.414) WORD(24L-1), WORD(24L)	CALL POUT (#(1.1.L) .K7X.K8X.1.NJ.0)	200 CONTINUE	MPITE (6.416)	ETURN		DRMAT (1H1 . 5X . 29HM	DR MAT ( / / 40 X . 18H U	DRMAT(//40X-15H V	DRMAT(//40 X . 16H MI	414 FORMAT( //40X . 15H W DATA ON THE , A5,8H SURFACE)	DRMAT LIVEOX.17H	DPMAT(1H1)
192	-	2	5	•	U	5	U	5	U	5	U	200	>	2		410 F	411 F	412 F	413 F	414	415 F	416 F
148															U						100	
2.2	1700	6200	\$7.00	20075	9400	200	87.00	64 00	0800	1800	0082	5800	1800	9890		9800	1800	9800	6800	0660	1600	2600
LEWEL 2.2 (SEPT 76)														ISN						ISN		ISN

MOPTIONS IN EFFECTANAME(MAIN) OPTIMIZE(2) LINECOLNT(55) SIZE(MAX) AUTOPBL(NONE)

15N 0093

PURM MIRO

MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOBECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP 2598, SUBPROGRAM NAME =MIRRH MN 92. PROGRAM SIZE = \*STAT I STICS\*

SOURCE STATEMENTS =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMP ILATION \*\*\*\*\*

140K BYTES OF COPE NOT USED

### REQUESTED OPTIONS OPT(2) . NOMAP

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GD TD 40 20 DD 30 JEN JJ NJ2 30 WRITE (6,102) J,(VAR(K,J),K=Kl,K2) 40 CONTINUE RETURN

SOPTIONS IN EFFECT SMANE (MAIN) OPTIMIZE(2) LINECORNT(55) SIZE(MAX) AUTODBLINONE)

STATISTICS SOURCE STATEMENTS = 25, PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

160K BYTES OF CORE NOT USED

POB. SUBPROGRAM NAME = POUT

REQUESTED OPTIONS OPT(2) - NOMAP

	EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP
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VIN) OPTIMIZE(2) LINECOUNT(SS) SIZE(MAX) AUTODBL(NONE	210
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	SOURCE EBOOLC NOLISI	MODECK USA	ECT NUMBER NO	UKHAT GUST	MULIST MUCECK UBJECT MUMAP NOFUKNAT GOSTMI NUKKET ALC	MOANSE VERM FLAGILLY DU
15N 0002	FUNCTION XLDX(KLAST)	STJ				XLOX 2
U						XLDX 3
u	INTEGRATION OF PAND	D JUNE				XLDX 4
						xrox s
15N 0003	COMMON / INTER /	XI(90)	. ETA(30)	• ZT (20)	. XIN(90) .	INTER 2
	-	XIE(90)	. XIC(90)	. XIR(90)	. ETAL (30) .	INTER 3
	~	ETAC (30)	. ETAR(30)	· coeu	· OPEr ·	INTER 4
	m	ZCMI	· ZW	. ZRM.	· ZCM.	NITER S
	•	PDUM (30)	. EDIM(30)	. XMIN	. XMAX .	INTER 6
	9	WAX	. ZWAX	. YMIN	. ZMIN .	. INTER 7
	•	ZW	. ZPW			INTER 8
15N 0004	COMMON / INDEX /	JANAX	. KMAX	· LMAX	. KTM1 .	INDEX 2
	-	KTIP	. KTIPI	. JALE	. LE(30) .	. INDEX 3
	2	MTE	. JTE (30)	. LVINGL	. LWINGU .	INDEX 4
	m	JMAX1	. KWAXI	. LMAXI	. KROOT .	COMF IX 1
	•	105				PNDEX 6
1SN 0005	COMMON / JUMP /	AZU	· AZL	. BZU	. BZL .	JUMP 2
		220	. 01	. COFF		COMF 1X14
	2	PJUMP (30,90)	0)	. PCDEF(30.90)		COMP IXIS
	n	KP INDX (30,90)	(06	. PJUMPK (20,30)	30)	COMF IX16
15N 0006	COMMON / WING /	YR007	. XLER	. XTER	. WIP	WING 2
		XLET	. XTET	. SREF	. SMEEP	INPTX 7
	2	NEI	. MEI(10)	. XLE1(10)	. STRUE .	INPTX 8
	3	NTE!	. YTE1(10)	. XTE1(10)	· SXPOS ·	INPTX 9
	•	CRIDIT	. SSPAN	. THICK(111)	. ZWNGWL .	INPTX 10
	•	NPAN	. W(11)	. THETP(11)	. NTWST .	AIPFORES
	•	YTWST(111)	. INUX(11)	. INLX(11)	. XF(180.11).	AIRFOIL6
	1	ZF(180.11)	* KSMTHS(11)	MOMX .	. XLE(30) .	INPT X 11
	•	XLEW(30)	· CORD (30)	. CORDW(30)	. CORDIN(11).	WING 10
	The second secon	XTE(30)	. RFACT	. CHEAN	. XTEV(30) .	WING 11
	•	NSO	. MS1	. KX0(12)	. KX1(12) .	. AIRFOILS
	C	NX0(12)	. NK1(12)	• YX0(12-10)		AIRFOILS
	U	XX0(12,10)	· XX1(12,10)	• DXR0(12)	. DXR1(12) .	. AIRFOILD
	٥	DXT0(12)	• OXT1(12)	. ALPHAN	. MIPLE .	AIRFOILL
	w	MTIPXI	. XLEWX(30)	. XTEVX(30)	· CORDX .	CHORD 1
		CAV	• XOK	. XLEVP(30)	. XTEWP(30) .	VSCFX3 I
	•	KSWICH				VSCFX3 2
						XLDX 10
15N 0007	COMMON / FLAGS /	TOTSK	. ISAVE	. IPLOT	. MSHINT	FLAGS 2
		SOLV	. MBCPRT	• BBCPRT	• BODY •	FLAGS 3
	8	\$	. ISPAN	. IF INR	. ICRUDR .	INPTX 1
	3	EXTINSH	. RENESH	. IMAPR	. YAY .	INPTX 2
	The transfer days that the property of	IBUMP	. IVISC	. ITWIST	. IFOILT .	INPTX 3
	•	18colv	. AXTSYM	. AREA	. IBLOUT	PMPTX 4
15N 0006	LOGICAL	TOTSK	. ISAVE	• 1PLOT	. MSHINT .	COMP IX 4
	The property of the Property P	2000	. WBCPRT	. BBCPRT	· RODY ·	COMP IX S
	2	FCR	. ISPAN	. IF INR	. ICRUDE .	COMP IX 6
	3	EXTENSH	· REFESH	. IMAPR	· TAV	COMP IX 7

LEVEL 2.2 (SEPT 76)	SEPT 761	XITOX		092/50	05/360 FORTRAN H EXTENDED	H EXTEND	93	DATE 77.295/16.02.59	PAGE
	٠		IBUMP		IVISC	. ITWIST	. FOIL	T . COMF 1X 8	
	8		IROD IN	•	AXTSYM	. AREA	. IBLOU		
15N 0009	•	COMMON / YANDPT / KIX	KIX	•	K2X	. K3X	. K4X	. COMF EXB7	
	-		KSK	•	K6X	. K7X	. K8X	•	
	2		KPIX	•	KMIX			COMF IX.89	
		IFLYAN) GO TO 500						XLOX 13	
	•	DO 400 K=KROOT SKTM1	11					M.Dx 14	
		F-JTE(K)						XLDX 15	
		DUNIK ) - TUNE (K	) become					XLDX 16	
	400	400 EDUM (K)=ETA(K)						XLOX 17	
		POUNTKTIP)=0.0						XLDX 18	
	3	DUMIKTIP)=SSPAN						XLDX 19	
	•	TALL SIMPIXLOXX.EI	DUMIKRO	04,(10	UNIKERDOT)	KLAST, IE	38)	XLDX 20	
	*	C DX=XLDXX						жъх 21	
	•	RETURN						XLOX 22	
ISN 0021	800 ×	500 XLDX=PJUMP(K4X,1)						XLOX 23	
		ETURN						XLDX 24	
	•	9						MOX 25	

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(!) DUMP

530, SUBPROGRAM NAME = XLDX 22. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT I STICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

156K BYTES OF CORE NOT USED

DATE 77. 295/16.03.04

REQUESTED OPTIONS OPT(2) . NOMAP

11 DUMP

			7.W.X	. WALX	- 7CM X	•	XINK	FXTER	•	
		•	ZRWIX	· ZCVUX						
15N 0011		COMMON / INDEX	/ SMAX	- KMAX	. LMAX		KTM1	INDEX		
		-	KTIP	. KTIP1	. SWLE	•	A.E(30)	. INDEX		
		~	JETE	. STE(30)	. LWING	•	LWINGU	. INDEX	•	
			MAXI	. KMAX!	. LMAX!	•	KROOT	. COMP IX		
		A Charles of the Control of	101	A CONTRACTOR				INDEX		
15N 0012		COMMON / FLAGS	/ IDISK	. ISAVE	. TPLOT	•	MSHINT	FI AGS	. ~	
				- WACDRY	- ARCPUT		107	FIAGS		
			82	. ISPAN	IF IND		ICRUDA	TNPTX		
		The second second second	FXTMSH	BENESH	THAPP		***	TANDT		
			TRIMP	IVISC	TALEST		TEOT! T	TNDTX		
			NI CONT	ANTENN	ADEA		10.01	TAIDITY		
2000 001			10164	TCAVE	10.01	•	-	AL SHUT		
C1 00 NC			2000	10000	00000	•	NI NOW	X		
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		u !		Nu con a		•	IL HOUN	• COMP EX	0 1	
			EXTRSH	. KEMESH	. IMAPP	•		· COMP IX		
			IBUM	· IVISC	· ITWIST	•	FOILT	. COMP IX		
		c	IBODIN	. AXISYM	. AREA	•	IBLOUT	COMP	•	
		DIMENSION	DCMU(30)	. DCBL (30)	. DCHS(30)	•		FIXEIPRI	10.	
		DATA PI /3.141592654/	1926547					OUTKX 14	14	
1SN 00 16		DIST(Y1, Y2, Z1, Z2) = SQRT((Y1-Y2) **2+(Z1-Z2) **2)	2) = SORT ( (Y1	-Y2) **2+(Z1-	72)**2)			FIXFLP82	182	
	U							OUIKX 15	15	
	v	SET VALUES OF	IND ICES					DUTKX	16	
	v							DUTKX	17	
		NRBU=JMAXX						DUTKX	18	
		IBUD=KBS						OUTEX	10	
		WRBL=JMAXX						OUTKX	50	
		IBLD=KBS						OUTEX	21	
		NRBS=JMAXX						OUIKX	22	
ISN 0022		IBSIDE=LBUX-LLBLX+1	.BLX+1					OUTEX	23	
	U							OUTKX	24	
ISN 0023		DO 100 J=1 . JMAXX	XX					OUTEX	25	
ISM 0024		XRBU(J)=X INX(J)	TO THE STREET					DUBKX	56	
15N 0025		XRBL(J)=XINX(J)	A CONTRACTOR					OUTEX	27	
ISN 0026	100	D MRBS(J)=XINX(J)	日本の子の 日本の					DUIKX	28	
	v							OUTEX	20	
		DO 110 K=1,KBS						OUTKX	30	
ISN 0028		ETARD(K)=ETAX(K)						OUTEX	31	
1SN 0029	110	D ETABLIK)=ETAXIK)						OUTEX	32	
	v							OUTKX	33	
15N 0030			DE					OUPKX	34	
ISN 0031	120	2BOD (L)=ZTX(L+LLBLX-1)	LBLX-1)					OUIKX	35	
	v							OUTKX	36	
	<b>.</b> .	TRANSFER RODY LINE TO GRID, AND GET SLOPE	LINE TO GRI	D. AND GET S	TODE			OUTEX	37	
SEN 00 22	,	CALL DATTENCHIN	Dir. Mike	TOUR CHE THE WAY WAY THE THE PARTY CHANGE THE				XXIOU	20	
			ריארכרי גרמי	DATTEN (M.C. XLCL , ZLCL , ZMAXX , XINX , ZLCL I , ZLCL ) P)	7011.70	1 6		OUTER		
			Z.XZMHB.ZMH	DATTEN (MHBZ . XZMHB . ZMHB . JM AXX . XINX . ZMHBI . ZMHBID)	-ZMHRI -ZMHR	101		OUTEX		
ISN 0035			Y. XYPHE . YMH	DATTEN (MHBY , XYWHE, YMHE, JM AXX , XINX, YMHBI , YMHRIP)	WHEEL . YMERE	(41)		OUTEX		
	v							OUTKX	53	
	v	COMPUTE AREA DISTRIBUTION	ISTRIBUTION.					DUTKX	54	
	U							OUTEX	55	

-	FIXE LP83	(X 57	X SA		09 X	OUTKX 61	OUTKX 62	OLITAY AS	60 41	FIXE LP64	OUTKX 65	OUTKX 66	FIXEIPRS		FIXE U-66	FIXELPRY	FIXELPRE	FIXELP89	FIXELPOO	FIXELP91	FIXE LP92	FIXELPO3	FIXELP94	FIXELP95	FIXELP96	ETXF1P97	FIXEIDOR	FIXEIDOO	FIXELLO	FIXELIOI	ETXELIA2	FIXELIOS	FIXEL104	FIXEL105	FIXELIOS	FIXEL107	FIXELIOS	FIXEL109	FIXELIIO	FIXELIII	FIXELITZ	FIXELII3	FIXEL114	FIXELIIS	FIXELI16	FIXELII7	FIXELIIB	FIXELI19	FIXCM63	FIXCV464	FIXELI22	FIXELI23	FIXELISA	- FIC-
3	YI.	OUTKX	OUTKX	 100	OUIKX	100	ALIO	47.00	100	FIXE	901	al o	FIXE		777	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	ETYE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXE	FIXC	FIXC	FIXE	FIXE	FIXE	
																							8-111																									133						
										S											(2)	FNZ)	DIST(*1.Y2.21.22) /(ETABU(KBS) -ETABU(KBS-1))				(2)	EN7	TER (KRS)=0151(V1.Y2-71.72)/(FTAR (KRS)-FTAR (KRS-11)														(ZN		BLX))		(DN=	DCBS(18S1DE)=D1ST(Y1.Y2.Z1.Z2)/(ZTX(LLBUX)-ZTX(LLBUX-1))						
										JOX THX (J) SARE LOSALPHX (J)								CALL ELIPSE (J.ETABU(2).ZQBU.Y1.Z1.FNX.FNY.FNZ)	ELIPSE (J.ETABU(1).ZOBU.Y2.72.FNX.FNY,FNZ)		ELIPSE ( J.ETABU(KBS) , ZQBU, Y1 , Z1 , FNX, FNY, FNZ)	ELIPSE ( J.ETABU(KBS-1), ZOBU, YZ, ZZ, FNX, FNZ)	U(KBS) -	EL 19SE ( J. ETABL (2), ZOBL, Y1, 21, FNX, FNY, FNZ)	EL IPSE ( J. ETABL (1) . 2081, YZ . 72 . FNX, FNY . FNZ)		FI 1956 (J. FTABL (KRS) . 7081 . V1 . 71 . FNX . FNY . FN 7)	EI 10SE ( J.F.TABI (KBS-1), 70BI .Y2, 72, FNX, ENY, ENZ)	1-FTAR					•	•					•			ELIPSE ( JOYOB, ZTX (LLBLX+1), V1, Z1 OF NX OF NY OF NZ)	ELIPSE (J. YOB, ZTX(LLBLX), Y2, Z2, FNX, FNY, FNZ)	DCBS(1)=015T(Y1,Y2,Z1,Z2)/(ZTX(LLBLX+1)-ZTX(LLBLX))	ELIPSE (J. YOB. ZTX(LLBUX), Y 1.21, FNX, FNY, FNZ)	ELIPSE ( J. YOB, ZTX (LL RIX-1) , Y2.72 , FNX , FNY , FNZ)	8UX) -2T						
									-	J) . SARE								ZI .FNX.	72.FNX.	TABU(2)	1.21.FN	.Y2.Z2.	) / (ETAB!	Z1 .FNX.	72.FNX.	(2)	1-71-FN	.Y2.72.	ARL CKRS					CALL ELIPSE ( J.A. ZORU, Y 1. Z1. FNX , FNY , FNZ)	CALL ELIPSE (J.B.ZOBU.Y2.ZZ.FNX,FNY,FNZ)					ELIPSE ( J.A . ZOBL . Y1 . Z1 . FNX . FNY . FNZ)	ELIPSE ( J.B. 2081 . Y2. 22. FNX , FNY , FNZ)		V1.21.F	.22.FNX	LLBLX+1	.21 .FNX	72.72.F	(ZTX(LL)			12.0	12.0	NY FNZ	
										J.XILX								OBU.Y1.	080.Y2.	DIST(Y1,Y2,Z1,Z2)/ETABU(2)	.ZOBU.Y	13.ZOBU	2.21.22	OBL . Y1 .	OBL . Y2 .	DCB( (1)=015T(V1.V2.71.72)/FTAB( (2)	708t Y	11.7081	721/1FT			2.0	2.0	ZI.FNX.	22.FNX .	DCBU(K)=015T(Y1.Y2.71,72)/(A-B)		2.0	2.0	ZI .FNX .	22.FNX .	DCBL(K)=DIST(Y1,Y2,Z1,Z2)/(A-B)	BLX+11.	BLX).Y2	1/127X	BUX).Y1	BUX-11.	21.22)/			A=(ZTX(1+1+LLBLX)+ZTX(1+LLBLX))/2.0	B=(ZTX(I+(LBLX)+ZTX(I-1+(LBLX))/2.0	2.FNX.F	
	00000	ZRREJ				3	8+88)	20108		WRITE(6,310)								BU(2).Z	BU(1).Z	Y1.72.Z	BU(KBS)	BU(KBS-	ST(Y1.Y	BL(2),Z	BL(1) • Z	2.71.72	BI (KRS)	BI (KBS-	.Y2.71.			A= (F TABU(K+1)+FTABU(K))/2.0	B=(ETABU(K)+ETABU(K-1))/2.0	ORU.Y1.	08U.Y2.	2.71.72		A=(ETABL(K+1)+ETABL(K))/2.0	B=(ETABL(K)+ETABL(K-1))/2.0	OBL.Y1.	08L.Y2.	2.71.72	.ZTXILL	.ZTXILL	2.71.22	.ZTXILL	,ZTXILL	(Y1.Y2.			+27X( ]+	TX( 1-1+	.B. 72.Z	
	IF (HBCPK) WKITE (6.300)	SBR I CK = YRB# ( ZRBU-ZRBL )	MAXX	(C)16447-(C)17707-4		RB=ZWHB1(J)-ZLCL1(J)	SAREL=0.254PI *A*(8+88)	SAI DAM! IN SEADER JEBOT OF	SARELYS	WRITE			ROUTE		LACAN	LBLX	. JMAXX	E(JoETA	E ( J.ETA	DIST	E ( JOETA	E(JOETA		E ( J.ETA	E ( J.ETA	STEVILY	FILLETA	FLASTA	DISTIVI		KRSMI	4114FTA	)+ETABU	E ( J.A.Z	E(J.8.Z	ST(Y),Y	.KBSM1	+1)+ETA	) +ETABL	E ( J.A.2	E ( 3.8.2	STIYIOY	E ( 3, 708	E(J.YOB	STIVIOY	E ( J.YOB	E(J,YOB	E)=01ST	DE-2	. 185M2	+LLBLX)	LBLX)+Z	E(J.YOH	
-	HELPHI	1CK=YRB	NO 145 JETS JHAXX	 1	A=YMHBI(J)	ZMHBILJ	EL=0.25	Darret 11	1010	IF (BBCPRT)	CONT INCE		YOU ET AX (KROOTX)	The state of the s		ZOBL = ZTX(LLBLX)	DO 200 J=1. JMAXX			DCBU(1)=			•			19=(1)	FI 105		(KRS)=	KBSM1=KBS-1	140 K=2-KBSM1	FTARUEK	ETABUIK	LELIPS	L ELIPS	U(K)=01	DO 154 K=2.KBSM1	ETABLIK	ETABLIK	L ELIPS		L(K)=01	L ELIPS		10=(1)\$	L ELIPS	L ELIPS	SCIBSID	18542=1851DE-2	DO 155 1=1.185M2	ZTX(1+1	Z1X(1+C	CALL ELIPSE (JOYOB.B. V2.22.FNX.FNY.FNZ)	
-	141	SBR	8	1	A=Y	=82	SAR	-	1		145 CON		NO.	-	9	ZOZ	8	3	SEL	800	CALL	CALL	80	CALL	3	2			1 2	KBS	8	3 4	9=(	CAL	3	150 DCB		A=(	L	CALL	CALL	154 DCB		CALL	8	CALL	CALL	8	185	8	A=(	9=	2	
											-	U	,																							-						-												
-	900	96 00	05.00	200	1400	0045	0043	*****	3	9045	0047		8400	2000	640	0020	0021	2500	0053	9900	9900	9500	0057	900	6500	9900	1900	2900	200	9900	2900	9900	1900	9900	6900	04 00	1100	0072	0073	6074	9075	9400	1400	87.00	64.00	0800	1800	2800	0083	1000	900	9800	0087	
-	ISE	ISN	15M	201	ISN	ISN	ISN	7	1	ISN	ISN		ISN		20	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	Z	ISN	7	2	S	N	NS	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISR	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	

	(SEPT 76)	S) QUIKK		05/360 FORTRAN H EXTENDED	HEX		DATE 77.295/16.03.04	
		DO 160 K=1.K	98				OUTKX 91	
		CALL ELIPSE!	ELIPSE ( J. ETABU(K) , 7 RBU, YE LIPS , ZEL IPS , FNXU , FNY , FNZ	JPS.ZEL	IPS . FN	IXU . FIRY . FIZ )	OUTKX 92	
		CALL CLIPSE (	ELIPSE ( JOETABL (K) , ZRBL, YELIPS, ZEL IPS, FNXL, FNY, FNZ	IPS.ZEL	IPS.FN	IXL . FINY . FINZ )	OUIKX 93	
15N 0093		RBCU (20+K . J) = -DCBU	20+K .J)=-DCBU(K MFNXU				FIXELI27	
12		RBCL (20+K.J):	(20+K.J)= DCBL(K POFNXL				FIXELIZE	
	74	160 CONTINUE					OUIKX 96	
		00 190 L=1,1	BSIDE				OUTKX 97	
		CALL BLIPSE!	ELIPSE ( J. YRB. ZBOD (L ), YEL IPS, ZEL IPS, FNXS, FNY, FNZ)	S.ZELIP	SPINXS	SPINY SPINZ 3	OUTKX 96	
	7	FY (20	DH.J)=-DCBS(L)#FNXS				FIXEL129	
	K	200 CONTINE					001K X100	
		RETURN					OUTK X101	
	ĕ	2 8X SEAREL	FORMAT(IHI/10X.17HAREA DISTRIBUTION /5X.1HJ.5X.4HXINX.5X. 2 8X.5HSAREL.9X.8HSALPH(J) /)	TTON /	5X-1H	-5X-4HXINX SX-	001K X102 F1XEL130	
15N 0102	3	310 FORMAT(4X.12	VT(4X.12.F10.4.2X.2F15.4)				OUTKX104	
		3					COLLABOR	
MOTTON IN SEEF CLANAME (MA	See Contraction		IN) DOT THE TELS ! ELMETTH BET (SE) SIZE (MAX.) ALTTONG (MOME)	KI CITE		AUTHORI (MONE)		

128K BYTES OF CORE NOT USED

3706. SUBPRUGRAM NAME = QUINC

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP

102. PROGRAM SIZE =

SOURCE STATEMENTS =

\*STATISTICS\*

REQUESTED OPTIONS OPT(21, NOMAP

	DOM
	CE EBGDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSE TERM FLAG(1) DUMP
	PERM
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ONE !	NOXREF
DOBLIN	GOSTMT
MAIN) OPTIMIZE(2) LINECOMT(55) SIZE(MAX) AUTODBL(MONE)	OFDRMAT
) SIZE	MOMAP N
COUNT ( SS	OBJECT
1) LINE	NDDECK
THIZE	NOLIST
AIN) OP	FBCDIC
NAME	SOURCE
IN EFFECT	
OPTIONS	

														SAVER	
. :	-			1200	7	20170	2	** ***	-		3	***	,	1000	
5	-		2	3	-	KI TES	5	TA FOR SAV	2	THE SUPPLIED WHITES DATA FOR SAVED SILLOTTON ON TAPE	5	TAPE 11		SAVST	
													S	SAVSIL	
13	COMMON			EL /		TITE(20)							-	BM	-
15N 0004	COMMON		/ INDEX		MAX		•	KMAX		CMAX		KTM1		MOEX	17
	-				KTIP		•	KTIPI		MLE		AE(30)		MEX	1.
	2				SATE			JTE(30)		LWING	-	LWINGU		X 3QH	
	3				MAXI			KMAXI		LMAXI		KR007		COMP BX	
	•				105								-	NOE X	
15N 0005	COMMON /	NO		INDEXX	/ SMAXX	*		KMAXX		LMAXX		KTHIX		INDE XX	
	-				KT IPX	×		KTIPIX		A.F.X (20)		JEX(20)		INDE XX	
	2				LWRIGUX	5		LWNGLX		JMAXX1		KMAXX1		INDE XX	
	8				LMAXXI	X1		KROOTX		xId			-	INDE XX	-
30 00 NSI	COMM	7	COMMON / WING /	19	YP-COD TY	1		XLER		XTER		TIP .		NING	
	1				XLET			XTET		SREF		SWEEP		INPTX	1
	2				MEET			MET(10)		XLE1(10)		STRUE		TAPTX	-
	9				MTEI			YTE1(10)		XTE1(10)		SXPOS	-	INPTX	
					CRODI	-	•	SSPAN		THICK(11)		ZWNGWL		THPTX	=
	0				NPAN			W(111)		THETP(11)		NTWST		AIRF OIL	-1
	9				TIES	TINST(111)		INUX(11)		INCX (11)		F(1180.11)		AIRFOIL	-
	1				ZF 111	ZF (180 .11)		KSMTHS (111)		MOMX	•	A.E(30)	-	INPT X 11	-
					XEE	ALEW(30)		COPD (30)		CORD W(30)		CORDIN(11)		MING	=
	6				XTE(30)	301		REACT		CHEAN		XTEW (30)		ING	=
	<				NSO			NS1		KX0(12)		KX1(12)		AIRFOTLA	3
	8				NX0(12)	121		NX1(12)		VX0(12-10)		W(112,10)		ATREMILA	-
	v				XXO	XX0(12,10)		XX1(12,10)		DXR0 (12)		DXR1(12)	•	AIPFOILO	=
	٥				DXA	DXT0(12)		DXT1(12)		AL PHAN		MIPLE	•	AIRFOLL	=
	e e				MIPPXI	XI	•	XLFWX (30)		XTEWX(30)		CORDX		CHORD	-
	ı				7			ACK.		KLEWP(30)	•	XTE UP (30)		VSCF X3	-
	0				KSWICH	3							>	VSCF XC	
15N 0007	COMM	2	COMMON / XYCOE	/ 30		(06°0E)X	•	XIY(30,90).		XIX(30)			U	COMP IX 18	=
					XIX	(06.0E)[AIX	6			XX(30)			٥	COMF 1X19	-
	2				XIN	XIVK (30,90)	10						0	COMF 1X20	N
15N 0008	MNO	10	COMMON / YANDOT	DPT	/ K1X			K2X		кзх	•	KAX		COMF IXET	5
					KEX		•	K6X		K7X		KBX		COMF IXE	×
	2				KPIX		•	KMIX					٥	COMF TYR	*
15N 0009	/ NOWWOO	3	INTER	ER /		10		ETA(30)		77 (20)	•	KIN(90)		INTER	
	1				X1E(90)	100		XIC(90)		X18(90)		ETAL(30)		MIER	
	8				ETAC	ETAC(30)		ETAR(30)		COEN		COEL	-	INTER	•
	m				ZCMO		•	שרע		ZRVL		ZCNL		INTER	-
	•				200	POLM(30)	•	FDUM(30)		XH IN	•	XMAX	-	INTER	-
	5				YMAX			ZWAX		VENT		ZWIN		INTER	
	•				7			That						INTER	
15N 0010	COMMUNA	2	FXTED	1 03		XIEXISON		FTAXIOUS		TX 1201	-	TOE JANIA		EXTED	
	1					X1EX (30)		XICX (30)		XIRX(30)		FTALX (30)		FXTER	
	~												,		1
	1				-	ETACX (20)		FTARX (20)		XMINX	-	MAXX		EXTER	~

			ZLW.X	ZPWLX	. ZCMLX	. Z.VUX	. EXTER 6
	•		ZAWIX .	ZCVUX			EXTER 7
ISM 0011	COMMON	/ BODY1 /	NOUNSE .	XTAIL	. MB IN (2)	XBIN(2,35)	. Brow 2
			MBCDS .	JBUP(2)	. JBDN(2)	NOSE	. BODY 3
	2		JTAIL .	AL PHAR	. NAPTS(90)	R( 90 )	. Briov .
	3		KBMX190)	LMN	· CMX	AFK(15)	. BODY 5
	•		PFK(15) .	CFK(15)	. AFL(15) .	HEL(15)	. 800v 6
	•		CFL(15)	ABL(15)	. BBL(15)	CBL(15)	. RODY 7
	9		ACL(2)	BCL(2)	. CCL(2)	BTYPE	. BODY 8
			XREA/(90)	XPBL (90)	DZRBU(90)	DZRBL (90)	. CHEN 1
	•		NO FRU	MRBL	YRB	ZRAU	. ADDV 10
			TOTA	KRWXX(30)	MUSEX	WATE X	. AUDA
			DG 19/12 - 3K1	MUSEX	NATATIVE NATA	- aus	
2.00	Commenter	, conne	EV 170.001	EVEZO. 001	57630.001	•	COME IVOS
****		-	KRID130.901		1811 20-901-	180120-901	
			MAPTSX(30)	1800/30.901			
			TOE OCIMINE.		TOT WELVE !		COME SASK
	, •		EVY(20.301	100.00130	oce ostron		COME PART
	-	, 50000	100000000000000000000000000000000000000	*******			
cion uci		canno .	***************************************	AL BITA	00001130	200	COME IN SO
				2000			בסעו ועכב
				KULT 30.00			COMP 1X30
	•		MBCUX (20.30)		WBCLX(20.30)		· COMP IX31
	•		DRING	DRACL	DRBCIN .	DRACLX	. COMF IX32
			SALPH(90) .	SALPHX (30)			COMP 1X33
ISN 0014	COMMON	/ HODYBC	/ IRID	180	. IBSIDE .	ETABU(10)	. COMF TX34
			ETABL(10) ,	ZBUD(20)	. MRBS	XRRS(100)	COMF 1X35
15N 0015	COMMON	/ SMM /		AZL	. BZU	BZL	. JUMP 2
	-		CZO .	כזר	. COFF		. COMF IX14
	2		PJUND (30.00)		PCDEF(30,90)		. COMP IX15
			KP INDX (30,90)	(0	. PJIMPX(20,30)	0)	COMF IX16
15N 0016	COMMON	/ LARGN /	PF (20.30,90)		DJK1(30.90)		COMF 1X45
	-		DJK2(30,90)		DJK3(30 .90)	STATE OF STREET	COME IXA6
	2		DJK4(30,90)		DJK5(30.90)	Silver Balls	COMF 1X47
			DJK6(30,90)		DJK7(30,90)	The second second second	COMP 1X48
			DJK8130,90)		DJK9(30.90)		COMF 1X49
	•		DJK10(30,90)		DJK11(30 ,90)		COMP IXSO
15N 0017	COMMON	/ COCAL /	AVCHGU(30).	AVCHGL (30)	. DCPMXU(30).	DCPMXL (30)	. COMP TX 75
	-		CPM. (30)	CPOL (30)	. JMXL (30)		
	2		CPOU(30)	EPSI	. FPS2	CMAXDT	. COMF 1X77
			CMAXDE .	CPTBAP	SONDUIGO	SOND! (30)	COME TYPE
	. •		MACHINE ( 201)	MACHONIZOS	CAKDIK 301	CHKDB (30)	COME BY TO
				CORRAD	Court and Son		
	, .		ENSO	NGPTOS	100000000		
15w 0018	COMMON	/ VSCIND	IVSWAX .	ISTOP	. IVITER .	INCOM	- TAPT X 73
			CDCVIC		Tours.	167600	
			TEANS	YTONY	- TOOLS	Daniel	- I X 1-41
	,		· · · · · · · · · · · · · · · · · · ·	- NAME OF THE PERSON OF THE PE	· XIMAG	Indi	CI XIAMI .
	, .		· YLINGY	LIMES Y	KEMUS	distrib.	· CYSEX I
			KEKITE	Lakite			CY3FX 2
15N 0019	LOGICAL		15 TOP				CYSEX 3
0050	COMMON	VITERP	XOUTOD (80).	ETAOLD (80)	(30.	60	. COMF IX83
	- '		DXLSTL (30,50)		KTMOLE .	· MONTO	. COMF TXRA
	N						-

		DJK11X(20.30)	301	. DJK1X(20,30)		-	COMP 1X53
15N 0022	COMMON / FLAGS /	IDISK	. ISAVE	. IPLOT	. MSHINT	FLAGS	2 55
	-	SOLV	. MRCPRT	. 88CPRT	. BODY	. FLAGS	25 3
	2	FCR	. ISPAN	. IFINB	. ICRUDA	. INDT	1 × 1
	The state of the state of the state of the	EXTMSH	. REMESH	. IMADA	. YAV	. INPT	1 x 2
	****** *******************************	IBIND	· IVISC	. ITWIST	. IFOILT	. THOTX	1 x 3
	5. CONT. 1.	TBODIN	. AXISYM	. AREA	. INCOUT	INDT	* ×
ISN 0023	LOGICAL	TOISK	. ISANE	. IPLOT	. MSHINT	· COMF !	+ 1X +
	ののでは、 はないないのではないのでは、 できない	SOLV	. WBCPRT	· BBCPRT	. 800v	. COMP D	5 XI.
	~	FCR	. ISPAN	. IF INR	. ICRUDA	· COME	9 XI =
	3	EXTINSH	. REMESH	. IMAPP	. YAN	· COMP	- K 1
	The State of States and States an	IBIMP	. IVISC	· I'WIST	. IFOILT	. COMF 1X	1x 8
	•	IBIDIN	. AXISYM	. EA	· IBLOUT	COME	6 XI 4
ISN 0024	COMMON / VISCOM /	DZF(50)	. DZU(50)	. (50)	. 00(50)	. COMF	56X1 =
		20(80)	. ZU(80)	• 00STL(150)	. DOSTU(150)		COMP 1X93
	2	SCFT (30)	. SCFB(30)	. CFFKL(30)		. COMF	- 1x94
	3	DODSTU(30.50)	20)	. DDDSTL(30.50)	50)	· COME	56XI =
		FPSWY1 (201).	FPSNW22(30)		Corkitzon	- COME	FIXON
	•	CO. C. S. C.			100111111111111111111111111111111111111		
	. •	2000	200000		Sec. Miles		
	0 (	DELLINE (20)	OFFEREIZO)	• 0702(50)	· EPSIX(20)	•	1X9E
		EPS2X(20)	. VOTHET (150)		. ITEX (30)		1X90
	•	@10(50)	. ETAK (30)	· CPW(150)	· CPIL(50)	. COM	COMF 1100
	•	COM. P.( 150)	. SBPAL (150).	. DELSL(150).	. GW(1150)		COMF 1101
	A	GW1150)	. DELSTU(50)	· GA(150)	· DELSTL(50)		COMF 1102
	•	CMU(2)	. CWL(2)		. PL(25)		COMF 1103
	U	DELSU(150),	· GF7U(150)	· ON (150)	. SBRAU(150)		COMP 1104
	٥	COMMO(150)					COMF 1105
ISN 0025	COMMON / SZT /	XDUT (50)	× ×	. SEPL (30)	. K88L	. 18M	3
		ZSLP06(30)	ZSLP06(30), ZSLPTE(30).			. COM	COMF 1117
		107-027 130-00	0.1				COME 11110
	Common Newsee	102 1000	W. 100 100 100			2000	
200	GENTIN 11	100 100	-			-	2000
						AVE	SAVELES
	MININE ST					SAV	SAVSOLZO
15M 0029	IF ( IVISC)KWR   TE=1					SAV	SAVS CL. 27
	KTOLDSKTX					SAV	SAVSGLZE
	KBOLD=KBX					SAV	SAVSER
	V						
						SAV	SAVSOLSO
	Consequents and I I INA	INVISCID SOCUTION DATA		*********	**********		SAVSOLTI
						SAV	SAVSOL32
	WRITE(6,503)TITLE					SAV	SAVSOL33
9034	WRITE(11,502)TITLE	E				SAV	SAVSILZA
	WRITE(11,510)KWRITE	75				240	CAVER TE
	WOLTERA, SALL LE WOLTE					-	200000
	The state of the s						200
	WELLELLI SOUTH TOLD SKEDED	DOKONED				SAV	SAVSOLST
		*KBOLD				SAV	SAVSILBE
	DO 41 KEK7X .K 8X					SAV	SAVS OL 39
	NX=JTE(K)-JLE(K)+1	1				SAV	SAVSGLAD
ISN 0041	MOKO ( K. ) =MOK					SAV	SAVS@41
0042	00 40 Jel .NX					SAV	SAVS (1 42
	J3= JLE (K)+J-1					SAV	SAVSOR
	XOUT (J)=(X(K,J3)-XLEW(K))/CORDW(K)	MI FW(K) 1/CO	POWEKI			247	SAVERA
	3.2	- 11 1 una				200	-
500	40 KONTOIK . JIE KONTO					SAV	SAUSTAS
****							

RITE(11.500)	WRITE(1)

	DO 42 K=K7X K8X	SAVSILAB
6400	MX-LXO(K)	SAVS (1.49
	WRITE(11,501)(XOUTO(K,J),J=1,NX)	SAVSOLSO
45	CONT INLE	SAVSOLSI
	URITE(11 500) ITER JAK SKMA XOLMAX SLUTNGUSK TIP	SAVS (L. 52
	TEL. NOT. RODY SO TO 9	SAVS(R.54
	WRITE (11-500) MOSE - JTATE - (KBMX (J) - J= MOSE - JTATE)	SAVSQL55
	DO 11 JEANOSE JTAIL	SAVSGES6
	N=KBMX(J)	SAVSOLS7
-	WRITE(11,500)((LBU(K,J),LBD(K,J)),K=1,N)	SAVSGES
•	CONTINE	SAVSOLS9
	WRITE(11,501)(PJUMP(K,JTE(K)),K=I,KMAX)	SAVSOLGO
	DO 10 JEL JAAX	SAVSGE
2	WRITE(11,501)((PF(L,K,J),L=1,LMAX),K=1,KMAX)	SAVSOLGE
	FFC.NOT-EXTMSHJGD TO 13	SAVSGLOS
	WRITE(11,500) ITER, JMAXX, KMAXX, CLMAXX, CLWNGUX, KTIPX	SAVSOLGA
	WRITE(119501)(XIEX(J), J*ISAXX), G(ETAX(K), RE1, RMAXX), G(Z)X(L), CLE1,	SAVSOLOS
	ILMAXXI	SAVSTED
		SAVSULOT
		SAVSILOS
	IN 21 JEJNOSEX.JTAILX	SAVSOLOS
7	Z-Kuska, C.	SAVSOLYO
12	WATTELLISOO (((LBOX(R,J), LBOX(R,J), N=1.0N)	SAVSOL
63		SAVSULFE
00	WEITER ILLEGIS ( F. S) A = 1. MAXX) K = 1. KMAXX)	SAVS IN TA
13		SAVSIR
		SAVSOL76
C****	******* WRITE VISCOUS SOLUTION DATA **************	SAVSGET
v		SAVSGLT
	DO 22 K=KTX+K8X	SAVS OL. 79
	NX=JTE(K)-JLE(K)+1	SAVSOLBO
	WRITE(11.501)(DD05TU(K.J),J=1.NX)	SAVSOLOI
22	WRITE(6,504)K,(DDDSTU(K,J),J=1,NX)	SAVSGLO2
	DO 23 K=KTX+K8X	SAVSOLB3
	NX=JTE(K)-JLE(K)+1	SAVSGLB4
	WRITE(11,501)(DDDSTL(K,J),J=1,NX)	SAVSOLOS
23	WRITE(6,505)K,(DDDSTL(K,J),J=1,NX)	SAVSILB6
	DO 24 K=KTX+K8X	SAVSOLB?
	NX=JTE(K)-JLE(K)+1	SAVSOLBB
	WRITE(11,501)(DXLSTU(K,J),J=1,NX)	SAVS (L. 89
24		SAVS (L.90
	DO 25 K=KTX,K8X	SAVS(L.91
	NX=JTE(K)-JLE(K)+1	SAVS (L.92
	WRITE(11,501)(DXLSTL(K,J),J=1,NX)	SAVS (L. 93
25	WRITE(6,507)K,(DXLSTL(K,J),J=1.NX)	SAVS G. 94
	DO 26 K=KTX+K8X	SAVS (1.95
	NX=JTE(K)-JLE(K)+1	SAVS CL. 96
	WRITE(11,501)(CPU(K,J),J=1,NX)	SAVSILO7
56	CONTEST ENGIN (COUNTY IN 121 NY)	2000
	WEI TELOSOO IN OLL POINT STREET	SAVSOL

DATE 77-205/16-03-20	SAVSDIOO	SAVSMOT	SAVSOIO2	SAVSOIDS	SAVS 0104	SAVS 0105	SAVSDIDE	**************************************	SAVSOIGE	SAVS0109	SAVSDITO	18# 77	18M 78	SAVSMIR	SAVS OF FA	SAVS 0115	SAVSOITA	SAVS 0117	SAVSOITE	SAVSn119	SAVSOIPO	SAVSOIZI	SAVSOIP2
OS/360 FORTRAN H EXTENDED			•					**** FURMATS ************************************					TLE = .2044)	TU(K.J) .J=1.NX. /. (5E16.81)	TL(K, J) .J=1.NX. /. (SE16.8))	TU(K.J).J=1.NX./.(SE16.8))	TL(K.J) .J=1.NX./.(SE16.8))	(.J).J=1.NX./.(SE16.8))	(.J), J=1,NX./.(SE16.8))			10=,14)	630
SAVSOL 05/360	NX=JTE(K)-JLE(K)+1	1) (CPL (K. J) . J=1.NX)	JK . (CPL (K . J) . J=1.NX					MATS *********			.83		. 21HOLD SOLUTION TI	H K= . 13,/ . 19H DDDST	H K=.13./.19H DDDST	H K=,13,/,19H DFLST	H K=,13,/,19H DELST	H K= 13./ 16H CPUIK	H K=,13,/,16H CPLIK		H KWRITE==14)	K70LD= ,14,5X,6HK80	
	NX=JTE(K)-J	WRITE(11.50	27 WRITE(6,509	30 CONTINUE	REWIND 11	RETURN		ACT ********		SOO FORMAT(1615	01 FORMAT(SE16	02 FURMATIZOA4	03 FORMAT(/10X	04 FOPWAT(1/1/3	05 FORMATIVIVS	06 FORMAT(///3	07 FORMATILLIA	OB FORMATILILIS	09 FORMAT(///3	10 FORMAT(12)	11 FORMATILIA	12 FORMATILITH	END
(SEPT 76)							v	* 0		0	Ó	0	0	S	0	in the	S	\$	8	0	8	6	
	0100	1010	2010	0103	9010	9010				9010	0107	9010	0100	0110	0111	0112	0113	0114	0115	0116	0117	0118	0110
LEWEL 2.2	ISN	ISN	ISN	ISN	ISN	ISN				ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN	ISN

MOPTIONS IN EFFECTMANE(MAIN) OPTIMIZE(2) LINECOINT(55) SIZE(MAX) AUTOORL(NONE)

MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOMECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

\*STATISTICS\* SOURCE STATEMENTS = 118, PROGPAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

116K BYTES OF COPE NOT USED

4114, SUBPROGRAM NAME =SAVSOL

PALE

LEVEL 2,2 (SFPT 76)

REQUESTED NPTIONS: UPTERIONAP

OPTIONS IN EFFECTS MAMPE(MAIN) OPTIMIZE(2) LINECUINT(55) SIZE(MAX) AUTOBBL(MUNE) Spurce EBCDIC nolist nodeck object nomap moformat gostmi muxref alc noamsf term flag(1) Dump

2000 NEI	SURROUTINE GRAPHICPU.CPL)	(143'043)				GRADODIO
	Cassess ASSEMBLE PLOT ROUTINE	ROUTINE				GRA00030
	THIS POULTINE	CODED FOR GOIL	GOILD PLOTTING	AT GRUMAN		5×40004×5
						GRAGOOSC
18N 0003	COMMON / MING /	YRDOT .	XLER	, XTER	, YIIP	GRAODO70
	•	xLET ,	XTET	, SREF	, SAEEP	CHADODED
	~	NLF!	VLEI(10)	, XLEI(10)	, STRUE	GRAUDO90
	•	viel .	VTF1(10)	, XTF1(10)	. SXPUS	CRACOLOU
	. 5	FRANT	SPAN	THICKCILL	ZaNG#!	GRA00110
		NPAR	VP(11)	THE TP (11)	NINST	GRAUDIZO
			Tallive .			Change
		-		XWOW .	XIECTO)	00100400
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	•	1001313				200000
	• •		100			000000
	•	. COLLEY	21117			00100440
	ů,	xx0(15,10),			. 0x41(14)	GH TOO 1 40
	0	DXTO(12) s	0x11(12)	. ALPHAN	, NIIPLE ,	GRAUDZOO
	AND THE RESERVE STATES OF THE	" IXdII"	XLE.X(30)	. XTE X (30)	. CORUX	5RA00210
	•	CAV	x0x	. XLE .P (30)	, XTE.P(30) ,	GRAUDEZO
	•	KSKICH				GRAUD230
19N 0004	COMMON / RELAXP	, MAKIT ,	MAXITA	. WAXITX	. INCH	GRAGOZGO
	and the second s	INCHX	PTEST	, PTESTX	. 9808	GHA00250
	~	. xansa	RES103(30)		, EPSEX ,	GRADOZEO
	1	, I,	×1.	, JRD	, KRD	5840027U
	7	(80	PIGRL	, JE	, KE	GRAUD280
	·S	L	FRRCE	, KUUNT	. waup	5840029U
		IPASS				GRA00300
18N 0005	COMMON / LABEL /	TITLE (20)				GRA00310
9000	INTER	, (06)1x	E14(30)	, 21(20)	, (06)NIX	GRA00320
		x11(90)	(06) 21x	, XIR(90)	, ETAL(30) ,	GRA00350
	2	FTAC(30)	ETARE30)	י כחבה	, cuel	GKA00540
	3	. 0,02	זראר	O ZHAL	י בכייר י	GRA00550
		PDUM(30)	EDUM(30)	, XmIn	. YMAX	GRA00360
	5	VMAX .	ZMAX	. YMIN	, ZMIN ,	GRA00570
	•	י חארצ	ZAVU			GRA00380
18N 0007	COMMUN / PARM /		74		. 14	GRA00390
		45	GAMMA	UMHOAM .	, 505	GRAUD400
	2	. 53	EMEXP(2)	. CK1(30)	CK2(30)	GRAUD410
		CK3(30) .	CK4(30)	Cx51(50)		GRA00420
		CK\$2(30,90)		CK1x(30)	CKZX(30) .	GRADO430
	•		*COF			CUACOGGO
*0000 ·	PE 41	MACHNO				GRA00450
18N 0000	COMMON / XVCOE /	x(30,90)	XIY(30,90),	, XIX(30)		GRACOGEO
		XIYJ(30,90)				GRAUD470
	. ~	XIVA(30,90)				68400480

16k 0010		, workers	1 N. S. A	THAY			1 5. A X		K1#1		06000000
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		2		CF1. (15)	. 481 (15)		88L(15)		(81) 19)		64400010
				10. (2)	, ACL (2)	•	(2) 100		RIVE		GH400620
		,		XABUCOU)	, XR9((90)		(06)09870		(06) 19870		GKAU0030
		•		NEBU	. NRBL	•	***		ZKBU		GRAUDORU
		•		ZHBL			JAMISEX		JIAILX		5K400650
		•		PBIN(2,55)		•	XIVIX		¥08	_	GRAUGOSC
13N 0013		COMMUN /	FLAGS /	101SK	, ISAVE	•	TPLUT		HSHIMI		GRAUDETU
				SULY	. #BCPRT	•	AGCPRT		RODY		GRADOSEU
		~		FCP	. ISPAN	•	16149		ICRUDA		04400440
		•		FXTASH	, PENESH		IMAPR		***		GRADOZOO
		,		Third	, TVISC	•	11*151		1FOILT		5R40071C
		2		TBOOTE	. AKTSYR	•	AREA		THLUUT		GRAU0720
13N 0014		LUGICAL		TOTSK	. ISAVE		TPLUT		LAINSA		GH40073v
		1		SOL.V	, *BCPR1	•	RECPRI		8007		GRA 30740
		7		203	. 18PAN		TFIND		1CRUDE		5RA00750
		3		EXTASH	, REMESH	•	THAPP		***		GRA0076C
		,		TRUND	, IVISC	•	181*11		FOILT		GRAU3770
		•		18001N	. AKISYM		AREA		IBLOUT		GRA00780
15H 0015		/ NOMADO	I SUGH /	XHANGE	, XINCH		XUP6		184SE		064000489
				YTREL						0	GRAUDEGO
15N 0016		LOWNON /	VSCTNP /	TVSHAX	, ISTUP	•	IVITER		WCU.		GRACOBIO
				FPSVIS	38.	•	TOUTP		STEPU		GRACOBZO
		2		TIPANS	, XIP.T		YTANB		UNIT		GRAUGESU
		3		KHINSA	, KZSHTH	•	KENUS		CHIS*P		GRAU0640
		7		KARITE	, LERITE						GRADOBSO
		LOGICAL		1570P							GR400660
15. 001A		COMMON /	VITERD /	XUUTOD(80),	), £140L0(80),	.10	DXL.STU(30,501	20			GRA00670
		-		DXLSTL(30,50)	105,	•	*IMOLF		MXOLD		GRAUDEBU
		~		470L0	GUURY .					-	GK#00890
											GRA00900
19v 0010		MU18*3*1"									GRA00910
		SIMENSTON DE									02600459
		DIVENSTON		BH (20), CDSAV (75, 30)	0)	•					GRA00930
		חופישבוני		מזיר ברוזה	CPU(36,46),CPL(36,46),CIR(46),CDU1(75),CPRESH(75,56)	30	10111151111	2	(15,50)		000000
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		יובייניים		501						•	000000
130 0051		NO SERVICE		184(15)							3400000
130 00CP		יון יביים וחיי	(C) direction as a	(4)							000000000000000000000000000000000000000
164 0037		E. Tufes.	F1 TW/60 . FT . V . VO . VT.1		(4x-7x)/(6x-x)+(63-13)+63	111	101-1				000000000000000000000000000000000000000
		ברושונ	- ILVIER -				( 1044)			, .	0001010
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                                                        CARAGES PLOT UPPER AND LUMER SURFACE OF DISTRIBUTIONS AT EACH STATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CALL DSTPLT(YPNTTI,K), DST, DSA, NXP, TITLE, MACHNU, ALPHAN, COPR, FRAC,
                                                                                                                                                                                                                                                                       CALL CPPLOT(YPNT(1,K),CPT,CPR,NXP,TITLE,MACHNU,ALPHAM,CURR,K,
FPAC,CLL,CML,CDL,KLUED)
CALL PLOT(8,5,0,0,-3)
                                                                                                                                                                                                                                                                                                                                                      CRAMMAN PLUT UPPER AND LUMER SURFACE DELIASTAR DISTRIBUTIONS
08/560 FURTRAN H EXTENDED
                                                                                                                                           JEBJTE(K)
TF'A,EG,KROOT ,UR, ISTR,EG,U) GU TO 3
TF'A,EG,KROOT ,UR, JS,NE,JTE(K-1)) [STREO '-
TF'A1',NE,JLE(K-1) ,GR, JZ,NE,JTE(K-1)) [STREO '-
                                                                                                                                                                                          YPNTENXP.K) B (XCK,J)-XLFHCK))/COHDHCK)
                                            CAIL SYMBLA(-2.0.-5.5.15,13,0.0,-1)
                                   CALL SYMBL 4 (-2,0,4,5,15,15,13,0,0,=1)
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                                                                                 CORR & AMINITO, FRRURS
                                                                                                                                                                                                                                                                                                                                   CALL PLUT(C.0,1.5,-3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CALL PLUT(4.5,0,0,-3)
                                                                                                                                                                                                                                                                                                          CALL PLUT(0.,0,,999)
                   CALL PLUT(0..4., -3)
                                                                                                                                                                                                                                    COLECTIVI/CC+CC)
                                                                                                                  TF(YAm) KBBLEKBONT
NO 10 KEKHOOT, KBBL
JIEJLE(K)
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                                                                                                                                                                                                 CPT(NXP)=CPU(K,J)
                                                                                                                                                                                                                                                                                                                                                                                        DO 30 KEKROUT, KBBL
                                                                                                                                                                                                          CPR(NXP) SCPL(K,J)
                                                                                                                                                                                                                                                               FRACEETACK) /VTTP
 GRAPH
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NO 25 JEJ1,32
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EVEL	2.5	ISEPT 761 GRAPH CS/350 FUDITAN M FATENUEU	. CATE 77,501/07,15,00
		ů	68401550
2 6	0074	s call Pluf(0,0,0,099)	64401550 68401570
10.			5840158u
	100	ל בירך הרחוריים ביים אוריים	04401040
-	9074	A 35 TF (YA+) GO TO SA	Getofolo
			54401620
I SN	0010		GRAU1840
2			GKAU1050
-			687.91000
		CREATER CREATE NEW MECHANISH SYSTEM WITH COULLY SPACED POINTS	
		-T 360 W	
134		,	GR401710
18			GKA-31120
2		TXE1.0/(0x-5.0)	GHAU1730
2 2	0000	•	0.0000000000000000000000000000000000000
18			GRAUITAN
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1 9N	0600		GRAU1780
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		CARAGES SHIFT ASCOUNDINATES OF PLANFORM FOR IMPUT TO	TRIISO BARARARARARANIOLO
1 SN			0.401040
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		Seeseeseeseeseese '   301×/0'V E JONESY/10" LX 350 *******	00010419
18%	0107	7 9C4LE = YTOLL/6.	00010425
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187		¥11C=X	GRAUZU30
200			GHAOZUAU
			GHAGZUSU
2	21.0	SC YLFICE	GRAUSUNO
		141.111	G4402070

LEVEL &	2.2	(SFPT 76)	GRAPH CS/360 FURINAN H EXTENDED DAT	DATE 77, \$01/07,15,00
Z	=		VTF1(1)8VTF1(1)-VBASE	GRAUZURU
ISN	0117	50		GRADZOOD
		·		GRAU2100
			esesse BEGIN LOUP FOR PLANFORM PLOTS AND TRITSO, askessessessesses	GRAUZ110
				GHA02120
NOT	0111		CALL PLUT(0, YMUV,-5)	GRA 02150
		·		GKAUZ140
I SN	0110		0. milli 02 000	GK402150
2	-		THE LEGIST AND THE COOPERS	GRAUCIOO
2	-		TF (MDM.EG.2) MRITE (99, 111)	5KA 02170
Z	-	110	CHATTANT PRESSURE CO	GRADELAG
Z	-		FORMATCHEN BOTTOM SUPFACE - CONSTANT PRESSURE CONTOURS)	GRA02190
Z	-		REMINO OC	GRAU2200
2	-		DEAD(99,999) (#R(1),1=1,11)	GKA UCE 10
2	-		DE-INC OG	GRADERED
Z	-		CALL SYMRLA(SYMUV75,.14,RK,U., 44)	GRADEESO
		u		SKAUCCEU Coanse
2	1010		בשר מיחור ביים ביים ביים ביים ביים ביים ביים ביי	0440340
-		2		00402340
200	1510	***	SCORE CALL COR 2 20 ALA E C EL 2 EU 2HOULD B	CHAUCA10
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	-			0020000
2 2	-		(11.181.) (1.181.) (1.181.) (1.181.) (1.181.) (1.181.)	00530400
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				GRA 02 350
2	21.67		THE AMERICAN AND THE PROPERTY OF THE PROPERTY	GRAU2340
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2	-		× 10. 10. 00.	GRADZato
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3			THE STATE OF	GRA02450
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N	-	6	00	GRA02490
Ne	-		米と問までよりものできょしかもなりがしていました。	GRAU2500
2	-	150		GKA 02510
Z	-			GRAUZSZU
N	-		7180181	5KA 02530
Z	-		( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	GRAUZSAU
Z	-			GH402550
Z	-		27 11 45	GHA02560
18N	0100		TF (XNFM(J2),GE,1,) 60 TO 151	GH402570
NS	-		JP8J2+1	GRAUZSAU
N	-	151	TF (FELL-FD.1)	GRA02590
			CINCAMDEFLIN(CPU(K,J1),CPU(K,J1+1),O,,XNEW(J1),XNEW(J1+1))	GRAUZEOO

JJBJ-J1+1
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
33
YYP(1) TOTLINE OF PLANFORM, S YYP(2) SYTRE/SCALE YYP(2) SYTRE/SCALE YP(2) SCXTET-YUPG)/SCALE CALL LINE(XP,YYP,2,1,1,1,1,1) YYP(1) SO,0 YYP(2) SO,0 YYP(2) SCXTEM(KROUT) -XORG)/SCALE YP(2) SCXTEM(KROUT) -XORG)/SCALE YP(2) SCXTEM(KROUT) -XORG)/SCALE YP(2) SCXTEM(KROUT) -XORG)/SCALE CALL LINE(XP,YYP,2,1,1,1,1,1)
no 180 Iminte:  vvR(T)=YFEI(T)/SCALE  vvR(T)=YFEI(T)/SCALE  CALL LINE(XP,YYP,NTEI,1,1,1,1,1,1)  *** COLLECT POINTS FUR 1.F. **********************************

YEL	2.2	(SFPT 7	163	GRAPH OS/360 FORTRAN H FXTENDED DA	DATE 77.301/07.15.00
	0209		2	70 14 1=1,"2 7017(1)=241440,02+201FF+FL0AT(1+1)/22+201FF	GKA03140 GKA03150
201	0510			CALL TRITSO(CPPESH, NNX, KK, NZ, ZCUT, XSTAT, VPF, SCALE)	GRAC 5170
1 0 N	0211	e ,			GKAU3190 GKAU3190
20	2	·		CALL PLUT(XMNV.U.U3)	GRA03210 GRA03220
1	0.514	<b>!</b>		CAN PLOT CP DISTRIBUTIONS ACROSS PLANFORM	6KA03630 6KA0560 6KA0560
	0215	U.		WRITE (99,114) MACHNO, AI PHAM, COPR	GHAU3260 GHAU3270
	0214			PEWIND 99	GHAU3280
2 2	0214			BEALING 99	GRAU3500
	0510			CALL SYMRL4(-,5,-140V-1,25,,15,48,0,,44)	GRA05310 GRA05320
			***	ses PLUT OUTLIVE OF PLANFORM, sessessessessessessessesses	GRA03530
ISN	0220	L T		YYP(!) BYTRF: /3CALE	6×403350
ISN	1550			YYP(2) EYTHEL/3CALE	GHA03360
2	0222			YP(1)a(XLETaXORG)/SCALF	GRA03370
I SN	0224			\$P(Z)=(X)E(X)=(YP,Z)=()	GHAUS590
130	9220			YYP(1) 80.0	GRAUSGOO
Z.	0226			VYD(2) EU. U	GRA03410
2 6	0227 0228			YP(1)B(XLEW(KHOUT)=KNRG)/SCALE YP(2)B(XTEW(KHOUT)=KNRG)/SCALE	GRAU5420 GRAU5430
181	0550			CALL LINE(XP, VYP, 2, 1, 1, 1, 1, 1)	GRAU3440
		ı.		AAR COLLECT POINTS FUR T.E. AARTHANDAGARACHANDAGARACHANDAGARACHANDA	6RA05450
		2		No. 28 of 191, 1957	2440
ISN	0251				G4403490
192		~	580		GRAUSSOU
-				CALL LINE ( MY VIV) WIELD TO THE TOTAL OF TH	G4403520
		:.	:	entert CollECT Points FOR 1. F. statusatestatestatestatestates	68405530 68403540
	0530	,		NU 285 IBITALET	GRAU3550
0 . Z	0235	•	285	YP(T)=Y[E](T)/SCALE	GRA03560 GRA03570
	0237		•		GRAUSSBU
					5840350u
	023A			ALL STO KEKPUNT,KTM1	5KA03000 5KA03510
	0230			X[F] = (X[E.KK)-XU06)/8C4[E	G#A 03620
	0241			THOU & CORDACK) / SCALE  YARLE (K) - YRASE ) / SCALE	GRAUSOSC
18	0242			NAP # JTE(K)-JLE(K)+1	6440365U
	0543			KK & K-K6UNI+1	GKA 0 3660

PATE 77.301/07.15.00																								
101	,	2	0	7	0	-	,	0	,	3	0	0	0	9	0	0	9	0	0		,	2	0	0
301	GHAUSB70	GRAUSEBU	GKAU \$690	GHA03700	GRAUSTIU	GRA05120	GRAUSTSU	GRAUSTUC	GHA03750	GHA03760	GRA05770	GRAUSTBU	GRA03790	** 58443800	GRAUSETO	GRAUSBRO	GRAUSESU	SKAU3840	CRAUSESU	GRAU3860	GRAUSB70	GRAUSBR	GRAUSBOU	GRA03900
11	GHA	GRA	GKA	GHA	CRA	GRA	GRA	CHA	SEA	GHA	CKA	GRA	SKA	ERA	CHA	GRA	GRA	SKA	CRA	SKA	SKA	GKA	GRA	GRA
PATE														*			, YTLP)							
vof o														PLOTO OF TATEGRAPHS TATED TATED TO THE GRAPH SPANNES AND SPECIAL SPANNESS OF TATEGRAPHS AND TATEGRAPH AND TATEGRAPHS AND TATEGRAPH AND TATEGRAPH AND TATEGRAPH AND TATEGRAPHS AND TATEGRAPH AND TATEGRAP			CALL SPNPLT(MACHNO, ALPHAM, PE, CORP, ETA, KROUT, KTM1, TITLE, YTIP)							
FXTE														****			TYL							
2							:	-						* " *			KROU							
US/360 FURTDAM IL EXTENDED							.0.0	.0.0						46 5M			.EIA.							
					0.11		5113	5,13						ALO			CUKB							THE STATE OF
18/36		CX	(*)		11.11		5,.1	51						RCES			. PE.							
		K) +C+	V6.3.		1111		0 V+B	nv-1.	3)			3)		FO F		,	MHAT	3)		•				
		YP(J) = YLF1+XPNT(.1,K)+CHHD	VYP(J) = TVAL - CPSAV(J,KK)		CALL LINE (XP, YYP, NXP, 1, 1, 1, 1, 1, 0, 1)		WA:	WA	CALL PLOT(XMN,0,0,0,=3)			CALL PLOT(A.,-VHOV3)		GRAT		5.03	4.ONF	CALL PLOT(0,0,-4,0,-3)		Sn CALL PLUT(8.5,0,0,-3)				
GRAPH	dx	1+ KP	. 14		P.YY		CXTT	CYTT	->0			***		TNT		5.0.	CMAC			.5.0			•	
3	ro \$75 J=1.0xP	XLF	> "	3	NEIX	E	MALA	MAPLA	07CX	E		07.0		3 OF		UTCO	NPLT	0700		0718	Lul		990 FURNATIZEAU)	
	\$75	5	3	325 CONTINUE	1 17	330 CONTTAILE	L 8V	1 84	1 6	20 CONTINUE		L PL		PLOT		L PL	L SP	1 9		1d 1	CALL EPLOT	DE TURA	PATC	
	0,	XPC	AYD	CON	-	NOL	2	147	24.	202		CAL		***		40	CAL	CAL		CAL	V	PE T	FUR	FNO
20				325		330				20				****						50			066	
(SEPT											٠		L	Ü	L				-					
	2000	5720	9500	0247	0248	0540	0520	1520	0252	0253	No K	0254	0.0			0255	9520	1520		0258	0520	0500	0201	0262
LEVEL 2.2	IS																							1 SN

\*OPTIONS IN FFFECT+NAME(MATN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(MUNE)

\*OPTIONS IN EFFECT+SOURCE FECUTO NOLIST NUMBER ORIECT NUMBER NUFURNAT GOSTAT NUXREF ALC NOANSF TERM FLAG(1) DUMP

36620, SUBPRIGRAM NAVE # GRAPH 261. PROGRAM SIZE . SHUBCE STATEMENTS = \*STATISTICS\*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPTLATTON \*\*\*\*\*

TORK RITES OF CORE NUT USED

## REQUESTED OPTIONSE UPTERT, NOMAP LEVEL 2.2 (SEPT 76)

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ATN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTOBE(NOME) FBCDTC MOLTST NUDECK OBJECT NUMAP NUFORMAT GOSTAT NUXHFF ALC MOANSF TERM FLAG(1) JUMP
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PT10N	TIONS IN EFFECTS		NAME (MATN) OPTIMIZE(2) LINECOUNT(55) SIZE (MAX) AUTUDSI (MUNE) SOUPCE FBCDIC MOLIST MUNECK UBJECT MUMAP MUFURMAI GOSTAT MUXMFF ALC	MOANSF TERM FLAGET
15	2000 NS I	-	GURROUTINE USIPLT(XX,USTAHT,DSTARB,NMAX,TITLF,FMACM,ANGLE, ERROR,FBAC,K,RE)	0.87.00.01.0 0.87.00.02.0
		C	****** MAKE DEI TASTAR/C PLNTS AT EACH SPAY STATION	0.8T40040
		[H]	ARREST THIS ROUTINE CONED FOR GUILD PLOTTING AT GRUDAAN	08700060
6.5	5000		DIMENSION XX(1), OSTAPICI), OSTABBCI), TITLE (1)	08100090
		V Lind	PUT A TITLE ON THIS PLOT	05100100 05100110
I SN	5000		CALL SYMPLUCAUSIALING TITLF ,	08709120
S. S.	9000	AHTTE 10 FIRMAT	ARTIF (99.14) FRACE, ANGLESKESFROOD FIDERATESTAR FS. S. SH. ALFESFO, 3, 4H. RES. E. O. 3,4H. C. S. S. C. C. VESED. 3,2X	53.00150 55.00150
198			E 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.5100170
I SN		DE AIND 60		08100190
132	1100	נאוף פּ	CALL SYMML4(-,5,-1,65,-14,7,0,4M)	0.810080
N S	0012	=	**TTE(99.16) K.FBAC.NMAX FURMAT(13H9PAN STATION ,12.6H Y/SB,F5.5,3x,12,16H MFSH PTS ON C	08700220 P1S DN CHDDSTU0230
-	9100	1,17)		08700240
ISN		PEAD	READ(99,999) (R(T),181,12)	03100260
201	0015	DEWIND 99	26 1 20 00 00 1 20 00 00 1 20 00 00 1 20 00 00 1 20 00 00 00 00 00 00 00 00 00 00 00 00	08700270
				08100200
10.2			•	03100300
1.94	0110		NO 30 Talphmax	05100320
184		30	X(T)=XX(T)/SCALE	08700580
194	0021	נאור א	CALL AXIS(0.0,0.0,11HUFLTASIAK/C,11,8.0,90.0,0.0,6,0,00,0)	08100350
19		נאוד א	FALL AXIS(0,0,0,0,3HX/C,3,5,0,0,0,0,0,0,0,2,0)	08100560
201		A 20 C	AC.B.O.	05100574
1 20 1	200	200	# 500, epstat(1)	08100590
2		1F (1)	TF (DSTAP GT. 016) GO TU 52	98198400
201	0000	to Charfulle	STABLE TALL DE US ARTON OF THE SAME OF THE	08100420
ISN			9.9	05700430
132		ng 00	00 30 Tm1, Nad X	DSTOORED
192	0032	78148	08-12-8 500, +08-12-8 (1)	08700450
192		כער	CALL STREET CATA COTA CATA COTA CATA CATA CATA CAT	05100470
ISN	9500	SO CONTINUE	30%	PSTOOLBO

EVEL 2.2	2.2 (SFPT 70)	P.STPL 1	ASSAU FURTPAN H EXTENDED	DEU DATE 17,501/07,15,41	PAUE
18n 0057 184 0058		CALL SYMBLA(6.5,8.5,.15,15,0,0,-1)	.15.13.0.01)	08T08690 18T08504	
19% 0040 19% 0040 19% 0040	. **	PETURY FURMATICEMAS) END		0.574.05.92	

CALL SYMBLA(6,5,8,5,15,15,0,0,-1)
CALL SYMBLA(6,5,-1,5,15,13,0,0,-1) 999 FUBNATICENAUS 19v 0059 19v 0040 19v 0041 18% 0057 18% 0058

\*UPITONS IN ERFECT-STURCE FACUTC APLIST PUBECK URJECT NUMAP PUFURAR! GASTAT PUXMER ALC MANSE TLAN FLAGILLY DIMP \*OPTIONS IN FFFECTIONANE (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZECMAN AUTUDOLINUME)

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SUNDER STATEMENTS #

\*STAT19716.9\*

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MOPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

18. PROGRAM SIZE = \*STATISTICS\* NO DIAGNOSTICS GENERATED SOURCE STATEMENTS = \*STATISTICS\*

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

156K BYTES OF CORE NOT USED

490, SUBPROGRAM NAME = SLETE

## REGLESTED OPTIONS OPT(2) . NOMAP

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£000	U	25W0 0020
50	C. C	5PN0 0040
03	CARREST THIS ROUTINE CODED FOR GOLLD PLOTTING AT GRUMMAN	SPN0 0050
	COMMON / FORCES / CMW , CLW , CDW , EDRAG	
*000	C DIMENSION TITLE(1), ETA(1), R(20), X(30), Y(30)	SPN0 0090 SPN0 0100 SPN0 0110
9000	C KTID=KTMI+1	SPN0 0120 SPN0 0130
9000	KTOT=KTIP-KROOT+1	SPN0 0140
9000	CD(KTIP)=0.0	SPN0 0160
6000	CMC2fKT1P)=0.0	SPN0 9170
00 10	DCB=CCBAR(KTM1) -CCBAR(KTM1-1)	SPN0 0180
00 12	CCBAR(KIP) = DCB/DETA+(1.0-ETA(KTM1-1)) +CCBAR(KTM1)	SPINOREDO
		SPN0 0210
0013	SCALE=0.2*YIP	SPNONZZO
00 14	00 7 1=KR001,KTM1	SPN0 0230
6100	7 K(K)=F74(1)/SCAF	SPNONS
2100		SPN0 0260
	U	SPN0 0270
9100	00 100 J=1.4	SPAN DEBU
	C PUT A TITLE ON PLOT	SPNO 0300
		SPN0 0310
6100	CALL STMBL4 (-55-Z-014-717LE-048)	SPN0 0330
00 20	WRITE(99,14) FMACH, ANGLE, RE, ERROR	SPNO 0340
0021	14 FORMAT(2HME,F4.3,5H ALF=,F6.3,4H RE=,E9.3,6H CONV=,E8.3)	SPN0 0350
00 22	REWIND 99	SPN0 0360
0023	READ(99,999) (R(1),1=1,11)	SPN0 0370
0024	66 CNIMEN	SPN0 0380
0025	CALL SMBL4(.5.~2.25.014.R.0044)	SPN0 0300
0026	WRITE(99-16) CLW-CPW-CMW	SPN0 0400
0027	16 FORMAT(3HCL=,F7,3,5H CD=,F7.4,5H CM=,F7.3,2X)	SPN0 0420
9200		SPN0 0430
00 29	READ(99,999) (R(1),1=1,9)	SPN0 0440
0030	REVIND 99	SPNO 0450
0031	CALL SYMBL4 ( -5,-2,5, -14,R,0,,36)	SPNO 0460
		SPNO ON TO

PAG		
DATE 77.295/16.04.23		SPNO 0490
05/360 FORTRAN H EXTENDED		
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SPNPLT		
(SEPT 76)		
2.5		

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\*OPTIONS IN EFFECT\*SOURCE FBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAG(1) DUMP

2464. SUBPRIGRAM NAME =SPNPLT 69. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT I STICS \*

\*STATISTICS\* NO DIAGNOSTICS GENERATED

OS/360 FORTRAN H EXTENDED

SPNPLT

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

LEVEL 2.2 (SEPT 76)

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	NE ) NOXREF
	PPTIONS IN EFFECT NAME(MAIN) OPTIMIZE(2) LINECOUNTISS) SIZE(MAX) AUTODBL(NONE) SOURCE EBCDIC NOLIST NONECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF YERM FLAC
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REGUEST	OPTIONS

TON NOOF	SUBROUTINE CPPLOT (XX,CPU,CPL,NMAX,TITLE,FMACH,ANGLE,ERROR,	CPP0 0010
	1 K.FRAC.CLL, CML, CDL, KLUE)	CPP0 0020
	v	CPP0 0030
	Casasasa MAKE CP PLOTS AT EACH SPANNISE STATION seassastastata	CPP0 00#0
	U	CPP0 0050
	CARABBE THIS ROUTINE CODED FOR GOULD PLOTTING AT GRUMMAN	CPP0 0060
	v	CPP0 0070
15N 0003	DIMENSION XX(1),CPU(1),CPL(1),TITLE(1)	CPPO 0080
	DIMENSION R(20),X(75),V(75)	CPP0 0090
	U	CPP0 0100
	C KLUE=1 - PLOT SYMBOLS	CPP00110
		CPP0 0120
	•	CPP00130
	C PUT A TITLE ON PLOT	CPP0 01 &0
	U	CPP00150
15N 0005	CALL SYMBL4 (53.7514.TITLE.048)	CPP00160
9000 NSI	FMACH . ANGLE . ERROR	CPP0 0170
15N 0007	14 FORMAT(4HM = ,F5.3.3X.6HALF = ,F6.3.3X,7HCONV = .E8.3.2X)	CPP0 0180
	REWIND 99	CPP0 0190
15N 0009	READ(99,999) (R(1),1=1,11)	CPP00200
	REVINO 99	CPP0 0210
ISN 0011	CALL SYMBL4(54.00-14.R.00.44)	CPP0 0220
	U	CPP0 0230
	WRITE(99.18) CLL.CML.CDL	
	18 FORMATIGHLDCAL CL=, F6.3, 10H LOCAL CM=, F6.3, 10H LOCAL CD=, F6.4,1X)	
	MEWIND 99	CPP0 0260
	READ (99,999) (R(1) - 1=1 - 12)	CPP0 0270
	REWIND 90	CPP0 0280
ISN 0017	CALL SWIRLA (5,-4-25,-14,R,00.48)	CPP0 0290
	U	CPP0 0300
	WRITE(99.16) K.FRAC.NMAX	CPP00310
1SN 0019	16 FORMAT(1345PAN STATION .12.6H Y/S=,F5.3,3X,12,16H MESH PTS ON	ON CHDCPPO 0320
	1-11	CPP0 0330
	REWIND 99	CPP0 0340
ISN 0021	READ(99,999) (R(I),I=1,12)	CPPONSEO
	REWIND 99	CPP0 0360
ISN 0023	CALL SYMBLA(54.5.14.R.048)	CPP0 0370
	v	
	C****** SCALE CHORDWISE ARRAY FOR ABSCTISSA. ******************	1444C PPO 0390
	·	CPP0 0400
	SCALE = .2	CPP0 0410
	-	CPP0 0420
1SN 0026	30 X(1)=XX(1)/SCALE	CPP0 0430
	U	CPPOOAAO
	DCP=-0.4	CPP0 0450
	VSC=-2.5	CPP0 0460
1SN 0029	CPM IN=-1.8	CPP0 0470

-	LEVEL	2.2	(SEPT 76)	163	CPPLOT 05/360 FORTRAN M EXTENDED	DATE 77.295/16.04.31	PAGE
	ISN	0031			CALL AX15(0.,-3.,3HX/C.,3,5.,0.0,0.0,.2,0)	CPP0 0490	
	ISN	00 32		2	CPC=(((5.4FMACH##2)/6.)##3.5-1.0)/(.74FMACH##2)	CPP0 0500	
	ISN	0033			IF(CPC.GE.CPMIN) CALE SYMBL4(5.YSC+CPC21.13,901)	CPP00510	
	ISN	80 30			JF(KEUE.E0.0) GO TO 36	CPP0 0520	
	ISN	0037			ANG=0.0	CPP00530	
	ISN	0038			DO 32 1=1 NMAX	CPP0 0540	
	ISN	96 00			CP = YSCOCPU(I)	CPP 0 0550	
	ISN	0040			JF (CP-LT-CPMIN) GO TO 32	CPP0 0560	
	ISN	0042			CALL SYMPL4 (X(1), CP, .07, 1, ANG, -1)	CPP0 0570	
	ISN	6400		32		CPP0 0560	
	ISN	4400			AN6=45.	0650 0 dd2	
	ISN	0045			DO 34 I=1 ,NMAX	CPP0 0600	
	ISN	900			CP = YSC+OPL(I)	CPP 0 0610	
	ISN	0047			IF (CP-LT-CPMIN) GO TO 34	CPP0 0620	
	ISN	6400			CALL SYMBLA (X(1), CP07.1, ANG1)	CPP0 0630	
	ISN	0500		34	CONT INJE	CPP0 0640	
	ISN	0051			60 TO 46	CPP0 0650	
	ISN	0052		36		CPP0 0660	
	ISN	0053			DO 42 I=1 ,NMAX	CPP0 0670	
	ISN	9600			CP = AMAX1(CPMIN,CPU(I))	CPP0 0680	
	ISN	9900		42	W(1)=YSC*CP	0690 0dd	
	ISN	9500			CALL LINE (X, Y, NMAX, 1, 1, 1, 0, 0, 0, )	CPPO 0700	
	ISN	0057			DO 44 1=1 ,NMAX	CPP0 0710	
	ISN	9500			CP = AMAXII(CPMIN,CPL(II))	CPP0 0720	
	ISN	6500		44	Y(1)=YSC*CP	CPP0 0730	
	ISN	0900			CALL LINE(X,YONMAX,101,100,00)	CPP0 0740	
			v			CPP0 0750	
	ISN	0061		94	CALL SYMBL4 (6.5,4.5,015,13,0.0,-1)	CPP00760	
	ISN	0062			CALL SYMBLA (6.5,-5.50015,13,0.0,-1)	CPP0 0770	
			v			CPP0 0780	
3	ISN	0063			RETURN	0640 0dd2	
3	ISN			666	FORMAT(20A4)	CPP0 0800	
5	ISN				ENG	CPP0 0610	

a

\*OPTIONS IN EFFECT\*NAME(WAIN) OPTIMIZE(2) LINECOUNT(SS) SIZE(MAX) AUTODBL(NONE)

335

40PTIONS IN EFFECT SOURCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTHT NOXREF ALC NOANSF TERM FLAG(1) DUMP 2806. SUBPROGRAM NAME =CPPLOT 64. PROGRAM SIZE = SOURCE STATEMENTS = \*STAT1ST1CS\*

STATISTICS NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

152K BYTES OF COPE NOT USED

## REQUESTED OPTIONS OPT(2) NOMAP

NAME (MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE) SOUPCE EBCDIC NOLIST NODECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TEPW FLAG(1) DUMP OPTIONS IN EFFECT

TRIO 0030 TRIO 0030 TRIO 0050 TRIO 0050 TRIO 0050	TP100080 TP100100 TP100100 TP100120 TP100120 TR100130		TP 10 0260 TP 10 0270 TP 10 0280 TP 10 0380 TP 10 0330 TP 10 0330	######################################
COMMON / ISDGM / XPANGE , XINCH , XDRG , YBASE I YESSERVE AL VACHRIS CONTOUR PLOT PROGRAM AL VACHRIS POUTINE CODED FOR GOULD PLOTTING AT GRUMMAN		DD 47 1=1.0XX 47 20E SH(1)=XH(1) DD 48 1=1.0XY 48 VMESH(1)=YH(1)/YTREL C. C	DO 3000 1=1,40x41 X(1)=xMESH(1) X(2)=xWESH(1+1) X(3)=x(2) X(4)=x(1) X(5)=x(1) X(6)=x(2)	Commence BEGIN LDOP THROUGH Y-POINTS. ************************************
	0 0			

	2111-2111	***************************************
SE OF NOT	(117-1175-max-1372	CONCLOT
		ODC OIL
15N 9030	(6)7=(0)7	olerolar
	, i	02500171
ISN 0037	DO 39 ISAV=1.6	TR100530
	VSAVE(1SAV)=Y(1SAV)	12100540
	39 ZSAVE( ISAV) =Z( ISAV)	TP100550
ISN 0040	DIFF31=ABS(2(3)-2(1))	TP100560
ISN 0041	DIFF52=ABS(2(5)-Z(2))	TP100570
ISN 0042	1F(D1FF52-6T-D1FF31) GO TO 41	120 0580
	X(1)=XSAVE(2)	10100590
UE.	X(2)=XSAVE(3)	TR100600
	X(3)=XSAVE(5)	TR10 9610
	X(4)=XSAVE(2)	TR10 %20
ISN 0048	x(5)=xSavE(1)	TR100630
	X16)=XSAVE(5)	TR100640
	Y(1)=YSAVE(2)	TP10 0550
	Y(2)=YSAVE(3)	TP10960
	V(3)=YSAVE(5)	TR10 M570
	V(4)=YSAVE(2)	TP10 1680
ISN 0054	Y(5)=YSAVE(1)	0690141
	V(6)=YSAVE(5)	TP10 9760
15N 0056	Z(1)=ZSAVE(2)	18100710
	(E)30052-(6)2	1010000
SN 00 NS	2(3)=7SAVE(5)	OF COLOT
15N 0059	Z(4)=ZSAVE(2)	19101740
	Z(5)=ZSAVE(1)	0540044
15N 0061	Z(6)=ZSAVE(5)	1810 9760
	60 TO 43	19100770
	41 CONTINCE	19100780
	00 45 ISA=1,6	TR 10 0790
	45 X(1SA)=XSAVE(1SA)	TP10.0800
15N 0056	43 CONT TIME	TR100810
	ZH1=Z(1)	TR10 0820
15N 0068	ZLD=ZH1	TR100830
15N 0069	00 3110 K=2,5	TP10 0840
ISN 0070	ZNOW=Z(K)	TR 10 0850
ISN 0071	JF(ZNOW.GT.ZHI) ZHI=ZNOW	TRIONBEO
ISN 0073	1F(ZNOW-LT-ZLO) ZLO=ZNOW	TP10 0870
ISN 0075	3110 CONTINUE	TR100880
	•	0690 0141
	Casesses BEGIN LOOP FOR PLOTTING CONTOUR AT Z = 2	ZLEVEL. ************************************
		01600141
2	DO 3200 K=1 ,NZ	TR10 M920
ISN 0077	ZLEVEL = ZCUTS(K)	TR100030
	G TD	TP100900
	1F1 ZLEVEL .GT . ZHT ) GD TO 3100	18100050
SN 0082	00 3210 KK=1.6	TR10 0960
15N 0083	3210 ZTEST(KK)=Z(KK)-ZLEVEL	TRI0 9970
		10100980
15N 0085	DO 4000 17=1.5	1P 10 0990
15N 0086	J7=17+1	***************************************
		00010121

PAGE	
DATE 77.295/16.04.37	
OS/360 FORTRAN H EXTENDED	
TRI 150	
(SEPT 76)	
LEVEL 2.2	

TR10 1020	TP 10 10 30	TP10 1040	TR10 1050	TRI0 1060	TR101070	TRIO TORO	TRI0 1090	TR101100	TP101110	TP101120	TR101130	TP101140	TR10 1150	TP101160	TP101170	TP1011M0	TRI01190	TR10 1200	TRI0 1210	TP101220	TP101230	TP101240	TRI0 1250	TP TO 1260	TR10 1270	TP101280	TRI01290	TRI0 1300	TP101310	19101320	TP101330	TRI01340	1910 1350	TR101360	TR101370	TP101360	TP101390
1F(KPT-LT-2) GO TO 4010	00 42 ITRAN=1.KPT	VVAL=VEND(1TRAN)*VTREL	CALL SLETE(YVAL.XLEE.XTEE)	XEN= (XLEE+XEND(ITRAN)*(XTEE-XLEE)/SCALE	VEN=VVAL/SCALE	XEND S( ITRAN) = XEN	42 YENDS(ITPAN)=YEN	CALL LINE(XENDS.YENDS.KPT.1.1.1.1.1.1)	KPT=0	4010 JF(ZTEST(IT)*ZTEST(JT))4100,4200,4000	4100 ALPHA=ZTEST(IT)/(ZTEST(IT)-ZTEST(JT))	KPT=KPT+1	XEND (KPT)=X(IT)+ALPHA*(X(JT)-X(IT))	VEND (KPT)=Y(1T)+ALPHA#(Y(JT)-Y(IT))	GO TO 4000	4200 1F(ZTEST(1T).NE.0.) GD TD 4210	KPT=KPT+1	XEND (KPT) = X ( I T )	VEND(KPT)=V(IT)	4210 JF(ZTEST(JT).NE.0.) GD TD 4000	K₽T=K₽T+1	XEND (KPT) = X ( JT)	YEND(KPT) =Y (JT)	4000 CONT FINE	DO 44 ITRAN=1 .KPT	YVAL=YEND(ITRAN)*YTREL	CALL SLETE(YVAL, XLEE , XTEE)	XEN=(XLEE+XEND()TRAN)+(XTEE-XLEE)/SCALE	YEN=YVAL/SCALE	XEND S(ITR AN) = XEN	44 YENDS(ITRAN)=YEN	JF(KPT-6T-0) CALL LINE(XENDS-YENDS-KPT-1-1-1-1)	3200 CONTINUE	3100 CONTINUE	3000 CONTINUE	PETURN	END
	18W 0091							15N 0096																15N 0116	15N 0117			1SN 0120					357		15N 0128	1SN 0129	

\*OPTIONS IN EFFECT\*NAME(MAIN) OPTIMIZE(2) LINECOUNT(55) SIZE(MAX) AUTODBL(NONE)

\*OPTIONS IN EFFECT\*SOURCE EBCDIC NOLIST NOTECK OBJECT NOMAP NOFORMAT GOSTMT NOXREF ALC NOANSF TERM FLAGII) DUMP

2564, SUBPROGRAM NAME =TRITSO

\*STATISTICS\* SOURCE STATEMENTS = 129, PROGRAM SIZE =

\*STATISTICS\* NO DIAGNOSTICS GENERATED

\*\*\*\*\* END OF COMPILATION \*\*\*\*\*

144K BYTES OF COPE NOT USED

PAUF

REQUESTED OPTIONS UPICE, NOTAP

DUMP OPTIONS IN EFFECTE NAME (MATA) OPTIMIZETZ) LINETUINT(SS) SIZETMAN) AUTURAL (NOWE)

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18% 000 X	1 9714 / NUMPO	YRUGY	. TLFR	. XTEH	, VIIP	. GE000070
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	~	1370	VLF1(10)	, XLE1(10)	, STRUE	· GEriobugo
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		CHOUT	. SSPA.	. Thick(11)	, 7×56×6	. Genaniie
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		76 (180.11)	. KS"THS"11)	-Unk .	, rLF (3v)	. GE000140
	•	XLF.(SA)	. CUBUCSOS	· CUGUY (30)	. CURDINCIES.	. 6£000150
	•	YTE ( 40)	. OF SCT	. CHEAN	, rtf(50)	. GE000160
	4	. 30	.8.	(21)0x3 .	. * x1(12)	. GE 700170
	•	"x0(12)	(21)11.	. YAD(12,10	3. VAILIZ.10	. GE000180
		YA0(12,10)	. XE1(12.10)	1. Px90(12)	, 0x41(12)	. GE000190
		F.T. (112)	. PAT1(12)	. ALPRA.	. WITPLE	. GE030200
		Indita	TLF . K(30)	. TIE-X(30)	. CURUX	. GE000210
	•	CAV	dir.	. XLF F (30)	. XIE.P(30)	. GE000220
	٠	×3-162				GE000230
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	•	26.90	. Z=V.			GENDOUZO
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		¥1! x(5")	. YICACS"	( xlox(3c)	. FIALX(30)	. GE000440
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ISN	18N 000m		FURNOS		INDEK	-	JMAX.	. KRAY	LMAX		· Iwl	645000490
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							19459					SEC00170
134	184 0016		COMMON	-	BOUVI	,	KAUSE		4816(2)		YBIN(2.55).	GEU00780
							*B064	JEHPTZI	Jen (2) .		TAUSE	66000790
							11411	AL PriAs	NAP181903		K(90)	GEOGGEOR
							KHWKCOOL	- Wh			AFK(15)	6100010
		4					AFK(15)	CFK(15)	461 (151		(51) 144	06600030
		51					CFL(15)	. 401 (15)	R91 (15)		(61, (15)	GE000830
		1)					46((2)	BCI (2)	(5)		ALYPE	GEOLOBAU
							. (ubinbax	YARL(90)	(00),9870	-	106) 19870	95000436
							URAU.	. NFAL .	486		7880	GE000660
		•					ZHHL .	. KOMXX(10) .	JMD3EX		JIAILX .	5EDUNB70
							9814(2.35).	. XANSEA	XIALLX		¥48	98000880
25	134 0017		*UFAND		8000	•	EX(50,90) .	. FY(37,901 .	106'05)73		•	06600039
							KBUD( \$0,90)		1,50(20,90)		(89(20,90),	06.000400
		4					NSP 18x( 50).	. Lanu(30,94)				GE000910
		7					( Q IX ( Su ) )		LBDX(20,50	_	•	6E000420
							FYX(20,50).	CPS(20,90)				GE000930
NS T	4100 NS1		בסתשטיי	-	80003	•	KONAX	KD. AXY	וראו		. 0671	GEDDOG40
							ירארא	ורשהו	HBC0(30,94)	_	•	66000450
								# # # F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				6400040
							150.3		PBCLx(20,50)		•	65000970
		31					SERCI!	DRACI.	DR4C IIX		DABCLX .	CENCOSHO.
		•					SAL PH(90)	SAI PHACSO)				66000990
N6.7	18N 0010		רטיייטא י		80004	•	אחנר נפט) .	י ניפטרומיי	גרנר נפס)		24CL(90) .	64.001000
		-					. (06) BHAZA	· (ub) GHUZ	(00) Bunk		. (06)954	Ge Coloto

PAUE

184   0155   TE ( "A * ") GN TO 275   GEOVAGES     184   0155   TE ( "A * ") GN TO 275   GEOVAGES     184   0157   TE ( "A * ") GN TO 275   GEOVAGES     185   0157   TE ( "A * ") GN TO 275   GEOVAGES     185   0157   TE ( "A * ") GN TO 275   GEOVAGES     185   0157   TE ( "A * ") GN TO 275   GEOVAGES     185   0157   TE ( "A * ") GN TO 275   GEOVAGES     185	LEVEL 2.2					
0155	18	0154			CALL TTC* (-4, 1,25)	GE002610
0157  250 CUNTINE  275 CALL PLOT 424.1.253)  6160  6161  6162  6162  6164  6167  6167  6168  6168  6168  6169  6169  6169  6169  6169  6169  6169  6169  6169  6170  6			u		345 00 00 00 345	GE 102620
0157			•			05.020.75
015.8 (275 FALL PIUT(=2,1,25,-7))  016.1 (FALL PIUT(=2,1,25,-7))  016.2 (CALL PIUT(=2,2,-5))  017.3 (CALL PIUT(=2,2,-5))  018.4 (CALL PIUT(=2,2,-5))  019.5 (CALL PIUT(=2,2,-3))  019.5 (CALL PIUT(=2,2,-3))  019.6 (CALL PIUT(=2,2,-3))  019.6 (CALL SYMPLE(1,-5,-0,14,18))  019.7 (CALL SYMPLE(1,-5,-0,14,18))  019.8 (CALL SYMPLE(1,-5,-0,14,18))  019.8 (CALL SYMPLE(1,-5,-0,14,18))  019.9 (CALL SYMPLE(1,-5,-0,14,18))  019.8 (CALL SYMPLE(1,-5,-0,14,18))  019.8 (CALL SYMPLE(1,-5,-0,14,18))  019.8 (CALL SYMPLE(1,-5,-0,-14,18))  019.8 (CALL SYMPLE(1,-5,-1,11))  019.8 (CALL SYMPLE(1,-1,-5,-1,11))  019.8 (CALL SYMPLE(1,-1,-1,11))  019.8 (CALL SYMPLE(1,-1,11))  019.8 (CALL SYMPLE(1,-1,11))	19			250	CONTINUE	64002050
18   18   18   18   18   18   18   18				31.6	PATE 0107(-3 1 35 -1)	GE 0 0 2 6 5 0
300 TF (T3.ED.0) GF TU 400  1159  1150  11					1 ACL P. U. L. C. 11 . C. 21 . 23	0.00.00.00
1050 500 TF (13.ED.,0) Gn TU 400  1062				:	** PILUT AIRFOIL SLOPE DISTRIBUTIONS	64002690
0162 0163 0164 0165 0165 0166 0165 0166 0167 0166 0167 0167 0167 0177 0177		04.0	•	200	10 00 00 00 00 00 00 00 00 00 00 00 00 0	65002700
0162 964E x = 2 964E x = 2 9164 964E x = 2 9165 964E x = 2 9166 964E x = 2 9166 964E x = 2 9166 964E x = 2 9166 964E x = 2 9170 964E x = 2 9171 964E x = 2 9172 964E x = 2 9173 964E x = 2 9174 964E x = 3 9175 964E x = 3 9176 964E x = 3 9177 964E x = 3 9177 964E x = 3 9178 964E x = 3 9179 964E x = 3 9170 965E x = 3 9170 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	•		·		0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	GE002720
964Ex = 2 964Ex = 15, 9164 9165 917 = 15, 9185 9185 9185 9185 9186 9187 9187 9187 9187 9187 9187 9187 9187 9187 9187 9188 9	13		•		CALL PLUT(,5,4,5,-%)	GE 02730
######################################	19		ن			GE 102740
0164	13					GENUZTEU
0165  F	-					GE002770
	:				7	GE002780
######################################		5 6			*	SECULATION OF THE PERSON OF TH
######################################	28.				TF (YA*) KE3	GE02810
######################################	8. T				FRAC # ETA(K)/SSPA"	GEOUZBZU
##TF(99,995) K  ##TF(99,995) K  ##TF(99,994) (#R(1),7#1,6)  ##TF(99,994) ETA(E),FRAC,*ZU)  ##TF(99,994) ETA(E),FRAC,*ZU)  ##TF(99,994) ETA(E),FRAC,*ZU)  ##TF(99,994) ETA(E),FRAC,*ZU)  ##TF(99,994) ETA(E),FRAC,*ZU)  ##TF(99,994) ER(I),FRAC,*ZU)  ##TF(99,994) ER(I),FRAC,*ZU)  ##TF(99,994) ER(I),FRAC,*ZU)  ##TF(99,994) ETA(E),FRAC,*ZU)  ##TF(90,994) ETA(E),FRAC,*ZU)  ##TF(90,994) ETA(E),FRAC,*ZU)  ##TF(90,994) ETA(E),FRAC,*ZU)  ##TF(90,994) ETA(E),FRAC,*ZU)  ##TF(90,994)  ##TF(90,994) ETA(E),FRAC,*ZU)  ##TF(90,994)  ##TF(90,994) ETA(E),FRAC,*ZU)  ##TF(90,994)  ##TF(90,994) ETA(E),FRAC,*ZU)  ##TF(90,994)  #	13				"XP = JTF(K)=JLE(K)+1	GEOUZABU
0175  0176  0177  0177  0177  0177  0177  0177  0177  0177  0177  0177  0178  0179	101					0.6500.45
0173 0174 0175 0177 0177 0177 0177 0177 0177 0177					143	GF 70 24 F
017A CALL SYMBLA(0,,=5,00,,14,RP,0,,20) CALL SYMBLA(0,,=5,25,,14,IIILE,0,,08) CALL SYMBLA(0,,=5,25,,14,IIILE,0,,08) CALL SYMBLA(0,,=5,25,,14,IIILE,0,,08) CALL AXIS(0,,=5,20,,14,RP,0,,36) CALL AXIS(0,,=5,80,,14,RP,0,,36) CALL AXIS(0,,=6,11HTVCLTANTGV,11,8,90,,0,,15,0) CALL AXIS(0,,=6,11HTVCLTANTGV,11,8,90,,0,,15,0) CALL AXIS(0,,=6,11HTVCLTANTGV,11,8,90,,0,,15,0) CALL AXIS(0,,=6,11HTVCLTANTGV,11,8,90,,0,,15,0) CALL AXIS(0,,=6,11HTVCLTANTGV,11,8,90,,0,,15,0) CALL AXIS(0,,=6,11HTVCLTANTGV,11,8,0) CALL AXIS(0,,=6,11HTVCTLTANTGV,11,8,0) CALL AXIS(0,,=6,11HTVCTLTANTGV,11,8,0) CALL AXIS(0,,=6,11HTVCTLTANTGV,11,8,0) CALL AXIS(0,,=6,11HTVCTLTANTGV,11,8,0) CALL AXIS(0,,=6,11HTVCTLTANTGV,11,8,0) CALL AXIS(0,,=6,11HTVCTLTANTGV,11,1,8,0,0) CALL AXIS(0,,=6,11HTVCTLTANTGV,11,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,	. E.				SEAD(99,999) (PR(1), Tat, 6)	GENUZBTU
0175  CALL SYMPL4(0,5,25,.14,TITLE,0,,48)  0177  WHTTE(99,994) ETA(M),FAAC,MXP  0180  REWIND 99  CALL SYMPL4(0,5,25,.14,TITLE,0,,48)  0180  CALL SYMPL4(0,5,25,.14,TITLE,0,,48)  0181  CALL SYMPL4(0,5,25,0,0,0,0,0,0)  CALL AXIS(0,4,11)+TMCLTMATTUM,11,8,0)  CALL AXIS(0,4,11)+TMCLTMATTUM,11,8,0)  CALL AXIS(0,5,50,0,0,0,0,0,0)  O183  CALL AXIS(0,.0,3)+X/C,3,5,0,0,0,0,0,0,0,0)  O184  CALL AXIS(0,0,0,3)+X/C,3,5,0,0,0,0,0,0,0,0)  O185  CALL AXIS(0,0,0,3)+X/C,3,5,0,0,0,0,0,0,0,0,0)  O186  CALL AXIS(0,0,0,3)+X/C,3,5,0,0,0,0,0,0,0,0,0)  O187  CALL AXIS(0,0,0,3)+X/C,3,5,0,0,0,0,0,0,0,0,0,0)  O188  CALL AXIS(0,0,0,3)+X/C,3,5,0,0,0,0,0,0,0,0,0,0,0,0)  O188  CALL AXIS(0,0,0,3)+X/C,3,5,0,0,0,0,0,0,0,0,0,0,0,0,0,0)  O188  CALL AXIS(0,0,0,3)+X/C,3,5,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	13				SEWIND GO	GEOORBAU
0176  CALL SYMPLA(0,,=5,25,,14,TITLE,0,,48)  0177  RETIF(99,994) FIA(M),FAAC,WXP  0178  READ(99,994) FIA(M),FAAC,WXP  0180  CALL SYMPLA(0,=5,50,14,MR),0,36)  CALL AXIS(0,=0,11)HTMCLTMATTUM;11,8,90,0,0,15,0)  CALL AXIS(0,=0,11)HTMCLTMATTUM;11,8,90,0,0,15,0)  CALL AXIS(0,=0,11)HTMCLTMATTUM;11,8,90,0,0,15,0)  CALL AXIS(0,=0,11)HTMCLTMATTUM;11,8,90,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,2,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,2,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,0,0,15,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,0,0,0,0,0,0,0,0)  CALL AXIS(0,=0,3)HY/C,3,5,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	6				CALL SYMPLE(05.00. LA.KR.O 24)	GE002890
##TTE(99,994) ETA(K),FRAC, WXP  0179  ##TTE(99,994) ETA(K),FRAC, WXP  0180  0181  CALL AXIS(0, -4, 11HTMCLTMATTUN,11,8, 90, 90, 15, 9)  0181  CALL AXIS(0, -4, 11HTMCLTMATTUN,11,8, 90, 90, 90, 15, 9)  0183  CALL AXIS(0, -4, 11HTMCLTMATTUN,11,8, 90, 90, 90, 15, 9)  0184  J = JLE(K) = 14J  X F JLE(K) =					CAN C SILLY AS NO DELLES CONTRACTOR	0.620039
######################################	13		•		בארך מיוחר מוניים מיים מיים ומיווו דיייים	66003030
0178 READ(99,999) (RR(I), I=1,9) 0180 CALL AXIS(0,,-5,50,,14,4R,0,,36) CALL AXIS(0,,-4,11)H76LTMATTUM,11,8,90,,0,15,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,2,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,2,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,2,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,2,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,2,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,2,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,0,2,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,0,0,0,0,0,0,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,0,0,0,0,0,0,0,0) CALL AXIS(0,,0,3HX/C,3,5,00,0,0,0,0,0,0,0,0,0,0,0,0,0) CALL AXIS(0,,0,4HX/C,3,5,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	ISN				WATTE (09, 994) FTA(K), FRAC, NXP	GE 0 6 9 30
DEAD(99,999) (PR(I), T=1,9)  DISO  DISO  CALL AXIS(0,5,50,.14,48,0.35)  CALL AXIS(0,4,11)+TNCLTNATTUN,11,8,90.,0.,15,0)  CALL AXIS(0,.0,344/C,3,5,00,0.,2,0)  CALL AXIS(0,.0,344/C,3,5,00,0.,2,0)  CALL AXIS(0,.0,344/C,3,5,00,0.,2,0)  CALL AXIS(0,.0,344/C,3,5,00,0.,2,0)  CALL AXIS(0,.0,344/C,3,5,00,0.,2,0)  CALL AXIS(0,.0,344/C,3,5,00,0.,2,0)  CALL AXIS(0,.0,344/C,3,5,00,0,0.,2,0)  CALL AXIS(0,.0,344/C,3,5,00,0,0,0,0,0,0,0,0,0)  CALL AXIS(0,.0,344/C,3,5,00,0,0,0,0,0,0,0,0,0)  CALL AXIS(0,.0,44,0,0,0,0,0,0,0,0,0,0,0,0,0,0)  CALL AXIS(0,.0,44,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,	19				66 QNI#36	GE002940
0180 0181 CALL SYMPLA(0,.=5,50.,14,48,0.,36) 0182 CALL AXIS(0,.=4,11)HINCLINATION,11,8,90.,0.,15.,0) 0183 CALL AXIS(0,.0,344/C,3,5,00.,0.,2,0) 0184 J = JLE(K)=1+JJ 0185 TO CONTINUE TO CONTINUE C UPPER SURFACE SLOPES C UPPER = HGUE+COFU 0189 9LOPF = HGUE+COFU 0180 9LOPF = HGUE+COFU 0180 9LOPF = HGUE+COFU 0180 9LOPF = HGUE+COFU 0180 9LOPF = HGUE+COFU	1.9				READ(99,099) (RR(I), Ta1,9)	GE002950
0163 CALL AXIS(0,4,.11HTvCLTvATTUV,11,8,.90,.0.15,.0) 0163 CALL AXIS(0,4,.11HTvCLTvATTUV,11,8,.90,.0.15,.0) 0163 CALL AXIS(0,.0,.3HXC,3.5,.0,.0.2,0) 0164 J = JLE(K)-1+JJ XP(JJ) = (K(K,J)-XLLH(K))/COPU·(K)/SCALLX  1 = JLE(K)-1+JJ 0165 C	-				of delaise	GE102960
0183 CALL AXIS(0.,-4.,11HTMCLTMATTUN,11,8.,90.,0.,15.,0) CALL AXIS(0.,0.,3HY/C,3,5.,u.,0.,.2,0) CALL AXIS(0.,0.,3HY/C,3,5.,u.,0.,.2,0) CALL AXIS(0.,0.,3HY/C,3,5.,u.,0.,.2,0) CALL AXIS(0.,0.,3HY/C,3,5.,u.,0.,.2,0) CALL AXIS(0.,0.,3HY/C,3,5.,u.,0.,.2,0) CALL AXIS(0.,0.,3HY/C,3,5.,u.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,5.,u.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,0.,3HY/C,3,0.,0.,0.,0.,0.,0.,0.,0.,0.) CALL AXIS(0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0.,0	-		٠		CALL SYMML4(0, .=5,50, .14, 44,0,156)	GE002970
0183	190				CALL AXISCO 4.11HINCLINATION.11.8900.4501	6E102440
0184 0185 0185 0187 0186 0187 0187 0187 0187 0188 0188 0188 0188	5.				CALL AXIS(0,00,3HY/C,3,5,00,00,0,2,0)	GEOU SUOU
0189	-0		U			66.003010
0186	201				10 510 510 MXP	66093670
0187	100				111	0505050
018A COFF = HCDE+COFU 018A COFF = HCDE+COFU 0189 SCHF = HCDE+COFU 0190 SCHF = HSCH(X,JJ)/COFF+AUFA+1HIST(X) 0191 YPP(JJ) = ATAN(SLOPE)/PAD/SCALEY	190			110		GE 0 3050
						GE003060
0164 FOFF = HCUE+COFU 0169 SLOPE = HSCU(K,JJ)/COFF+AUFA+1+1S1(K) 0190 YPP(JJ) = ATAH(SLOPE)/PAD/SCALEY					INDEED SUBFACE SLOPES	GE003070
0169 NG 529 JJEI,MXP 0190 SLIPF E ABCUCK,JJ)/COFF+AUFA+IAISICK) 0191 YPP(JJ) E ATANCSLOPE)/PAD/SCALEY	ISA				"	6400000
0190 SLIPE E ABCUCK,JJ)/COFF+AUF+1-1STFK) 0191 YPP(JJ) E ATANCSLUPE)/PAD/SCALEY	190				ng 529 JJE1, NXP	GE003100
VYP(.1) * ATANCSLOPE) PAD/SCALEY	13				SLIPF & ABCUCK, JJ) /COFF+AUFA+1 . 1817K)	64003110
	13			1	YYP(.13) # ATAN(SLOPE)/PAD/SCALEY	6E003120

H EXTENDED DATE 77,301/07,16,13	6E003140 6E003150	GE001100 GE0011000	061003100				GE 0.03.260 GE 0.03.270	GE003280	GE003590 GE003500	GE003310 GE003320	08580039	0E003340	GED03360	6E103370 6E103580	GE003390		MER, 0., 5) GEOGRADO	0776037760	68003450	06003470	060000000000000000000000000000000000000	0.0000000000000000000000000000000000000	GE003520	66003550	0±000138	GE 003560	GE00 5570	2000	6E103600	0 F D C 3 B D C S B D	GE003040
GENMUR US/360 FURTRAN	CALL PLUTCKP(1), VVP(1), 3)	THE (** PORT   10 TO SEC.   10	TF (T. "E.S) GU TO 330	CALL PLOT(XP(5)+1,, TVP(5)+1,,2)	CALL SYMRLA(YP(S)+1, YYP(5)+1,,,07,5HUPPEx,0,,5) CALL PLUT(XP(5),YYP(5),3)	CONTINUE	SEGUIS ADVENUE OF THE		COFF B FOREACOFL	SELDPE B MBCL(K.JJ)/COFF+AUFA+1120T(K)	CONTINUE	CALL BLITCKPC11, VVPC11, 51	NU 550 142,4XP	TF (YPE(1).LT4.) GO TO 550 CALL PLUT(XPE1).YPE(1).2)	TF (T. VE.51 60 TO 350	CALL PLOT(XP(5)+1,,YVP(5)-1,,2)	CALL BYHRL4(XP(S)+1,,YVP(S)+1,,O7,SHLOMER,U.,S)		CONTINUE	CALL PLUT(8,5,0,,-5)	CALL TTC*(-2.,6.)	TF (YA4) GN TO 375	CONTINUE		CALL LINE T(-1)	FALL PLUT(0,1,5,-3)	CALL 17CK(-2.,1.5)	** DRA" THE RUDY INPUT (TENDTH # 1)	7F (74.ED.0) GF TU 500	005 UT 00 (YOUR TOWN) WIT	TF C. VOT. IBUDING GO TO 500
20						330					340								350				300					*	200		
(SFPT	U			U		·	00	٠				U				u		U	•		•		_	U			•		·	·	
2.2	1910	26.0	010	0500	0201	0203			02020	0200	0504	0000	0510	0211	0510	0214	0217		0510	0550	1770	0222	0220		0224	0227	W220		0220	1550	0233
EVEL		2 2		Z	Z Z				ZZ	2 2	Z			7 8 T			Z .		S	No.		I SN	ISN		2 2		2		18m		19

2	LEVEL	2.2	( SEPT	10.	GEDAVH IS/360 FURTRAN H EXTENDED	DATE 77,301/07,16,13	944
			٠			GE003670	
	ISN	023			11)96 = XIICL(1)	GE0036R0	
	ISN				3	GE003690	
	1 SA	023			SCALF & YHANGE/10.	5E003700	
						GE/103710	
	184				-	GE003720	
	38					64003730	
	SN					GE003740	
	188	0243		401	KHTTF(99,992)	GE003750	
	192			402	DEWIND GO	GE-03750	
	20.				BEAUT99,999) (PR(1),121,9)	GEnu3770	
	NS.				BEWIND 60	GE003780	
	ISA	0247			CALL SYMPL4(2, 1-3,25, 14,48,0,36)	GE003790	
			·			64003800	
	2	250			CALL SYMPL4(2, 3, 5, . 14, TITLE, 0, . 48)	62003810	
	-		u			66003820	
	2	0540			TALL BALOCO SCHEMENT STATE OF SCHEMENT CO.	05050039	
	101		•			0.0000000000000000000000000000000000000	
	18	0251			00 410 181-MICI	GEO03460	
						65003670	
	ISN	0253			-	GEOU3680	
	184			410	-	64003890	
	NS.	0255			CALL LINE (XP, YYP, NUCL, 1, 1, 1, 1, 1)	GE003900	
			•			GE003910	
		0256			CALL PLOT(14.,0.,-5)	GE003920	
	28.				CALL 17CK(-2,,4,5)	GE003930	
3			·			GE003940	
46	20	1500	•		(* (**187*) 60 10 473	05001000	
		0340	,			GE 70 10 70	
					4	G-0.39A0	
	2	0262				GE-103990	
	10.00		·			95.004000	
	20.	1460	,		XPTTF 190.0011	65-04010	
	20				DE TIND GO	GE 104020	
	NO				DEAU(99,999) (PR([1,[R1,9]	GEOGOSO	
	28.				DE WIND 90	GETUAURU	
	181	0267			CALL SYMPL4(2,,-3,25,,14,RP,0,,56)	66004050	
			·			GENOUDO	
	N.S.	020			TALL SYMBLA(2, -3, 50, 14, TTTE, 0,, 48)	GE004070	
						GE004080	
	2	0569				6E704090	
	2		•		CALL AYIS(0.,-2.,442LCL,4,5.,90.,0.,SCALE,0)	64004100	
			_			GE 004110	
	2 2	0 0			VOCET & VICE CENTER	0210030	
	2				APCT - CELCI CIDENCES / SCALE	G+104140	
	N			420	-	GE004150	
	2	0275				GEOU4160	
			·			GE104170	
	201	0276			CALL PLOT(14.,0.,03)	GE004180	
	20					GE004190	

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LEVEL	2.2	(SFPT 76)	GEDHUR DS/SAU FURTRAN H FATENCEU	DATE 77.301/07.16.13	PAGE
134	5150	200	in TF (IS,ED,n) on To enu	GE1104730	
197	0317	U	CALL PLUT(,5,1,,+3)	GE 0.4750	
		ı	1	65004760	
13.	0310		TF (REMESH, AND, IPASS, FO. 1) NFSHEL	GEO.4780	
ISN	0321		510 1	000000000000000000000000000000000000000	
181		3	O TEMPLES	56064410	
181		,		6.004830	
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26.			• .	GE004860	
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				GE (1) 0 0 9 0 1)	
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201	0341		THE STREET OF STREET ST		
101		٠	(4.000000000000000000000000000000000000	65005070	
I Se	9450	,	SCALEX # (TEMP(JS)=IFAP(JU))/5.	GEDUSUAG	
		·		GE005000	
ISN				GE005110	
190			READING, 090) (PH(I), TRI, 10)	GE005120	
2 2				64 10 51 50	
		U		GE005150	
192	0351		CAIL SYMPLU(5,-2.00, 14, TITLF, n., 48)	GE005160	
		u		65005170	
2 20 1	0353		CALL AY 3 (0, 00, 1940 EL14 X 1.04.7, 90, 00, 5 CALEY, 0)	00150000	
		U		SE005200	
2 2	0 252		TALL DICTURNITION AND AND AND AND AND AND AND AND AND AN	6E10520	
184			9	64005230	
I SA			CALL SYNBLU(XP' 1, 5, . 07,54X)=0,,0,,5,	GE105240	
		L		62005250	

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184 060 E		CALL LINF (*PERRUNT), VYP(KKNUT), KPLNT, 1,11,1,1,1,1,1)	GE00897v
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		STATE	000000000000000000000000000000000000000
9940 NET		CDL 1	64.000.20
13v 0669		TALL SATE LEXPETS ABATE CT. CT. CT. CT.	GE00030
19% 0670	420	F0.T1	07060U39
	U		05000000
194 0672		TAL TTCK (-2, 1, 5)	56009070
	·		GENOGORO
		*** PLUT AUDY SLOPES	GEO.0000
	900	TF (19.F0.0) 60 TO 1000	6E009110
19n 0675		=	GE000120
			05.0000
180 0577		CALL PLUT(0,,4,5,0%)	GE 0.9150
15% 067A	,	46 % B 2	GE009160
		TF (PENESH, AND, IPASS, ED. 1) NFSHET	64009170
Tet of B!	u		26100100
	·		6E000200
18v 0682		SC4LFx = .2	01260030
18N 0687	U	ADFA & ALPHARARD	GE009230
			94700540
15v 066a		X43C4MC OFF OC	05200000
		•	66039270
18N 0684		Jetx a Jubx	GE009680
184 0487	_	A M. M. D. D. T. C.	GEOLOGIC
	·		GE009310
			GE009320
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		Principal and a principal and a substantial state of the second of the s	GE1109550
		COFU B (21(LLBU+1)+27(LLBU)+2,4286U)/2.	GEO09350
Thun NET		CUFL & (21(LL6 =1)+21( LHL)=4, +2#81)/2.	0.00000
18N 0491	916	XImprist 026 Ou	GE009590
		*	GELIJOANO
184 0695	450	CONTINUE	014000410
		PLAT THE AND BOTTOM RUNT SLOPES	GEC (9430
			GE109440
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1				(99,099) (PH(I),T=1,13)	GE010030	
3	13v 0753			06 0mlm30	6401000	
1.8				CALL SYMPLUCO 5.00. 14. KA, n 52)	GE010050	
		•			GE016060	
13	SN 0755			CALL SYMPLA(0,5, 25, 14, 1771 6,0, 1481	0.001030	
				CALL BLITCA S. P A.	SEC. 10090	
1	81 0757			11CK(-2,.6,1	GE010100	
- 49		•			GE010110	
13	SN 0758		000	PONTTAUE	GE 119120	
				PLOT STOE "ALL HOUV SLOPES	66010130	
		•			GE010150	
13	SN 0759			NU 940 LELAITB	GE01016v	
1	070				02101010	
1.8	In 0701			76 419 g 0	66010100	
=				. 2	62010200	
-	4× 0763			TF ("ESH.LF.2) TYP(J) SFY(LL.1)	Gen1021v	
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-					66019390	
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PAGE 22

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## SECTION II

## PROGRAM FLOWCHART

The Transonic Wing-Body Code has been flowcharted on a Gould Plotter using the AUTOFLOW II Program. Because of the size of the program, it could not be flowcharted as a single unit. It was broken down into blocks of approximately 1000 cards (usually 5 or 6 subroutines).

AUTOFLOW II generates an internal set of page numbers for each group of subroutines. These page numbers are printed in the upper right hand corner of each page. Since AUTOFLOW II uses these page numbers to resolve branches and subroutine calls (within the same group), they have been left in; if they were deleted, a flowchart extending over several pages would become virtually useless.

Branches are denoted by a circle enclosing two numbers; for example, a circle enclosing the numbers 15 and 10 would indicate a branch to box 10 on page 15 (within the same group). If a decimal number is enclosed in a circle; e.g., 16.02, it indicates that the code is continued at box 2 on page 16. A branch from another page is indicated by a decimal number; e.g., 17.22, preceding an arrow; in this case, the branch would be from box 22 on page 17.

AUTOFLOW II also produces a listing on non-executable statements (common blocks, format statements, etc.) with each subroutine flowcharted. In order to conserve space, these pages have been eliminated.

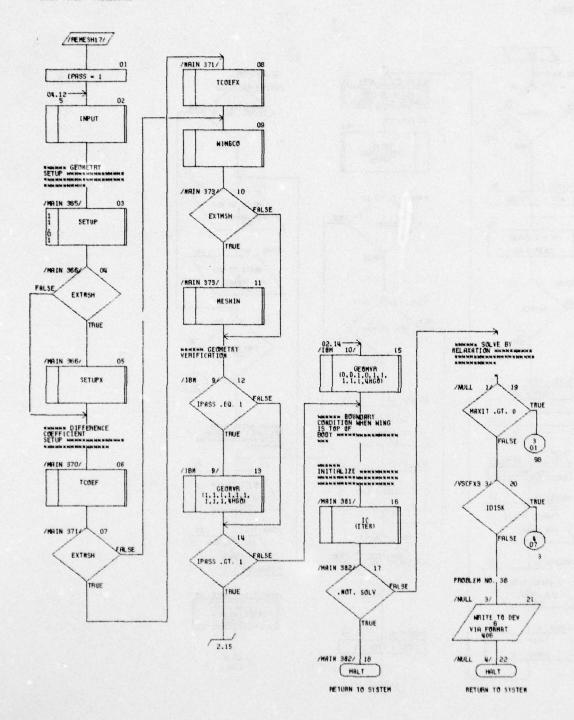


# FLOW CHART - 1

Subroutine	Autoflow Page
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CHART TITLE - PROCEDURES



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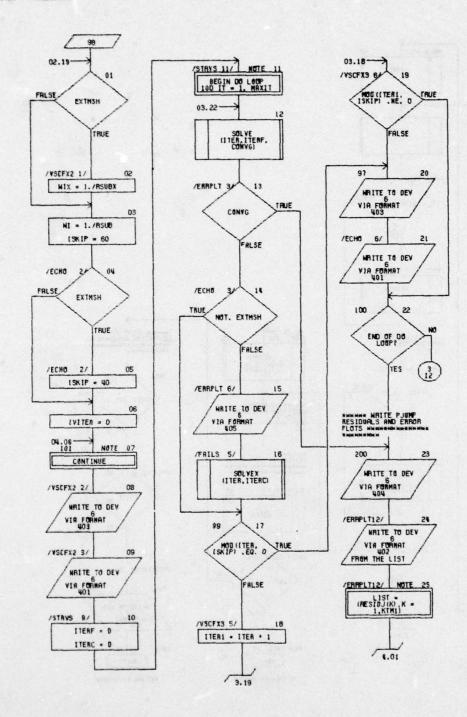
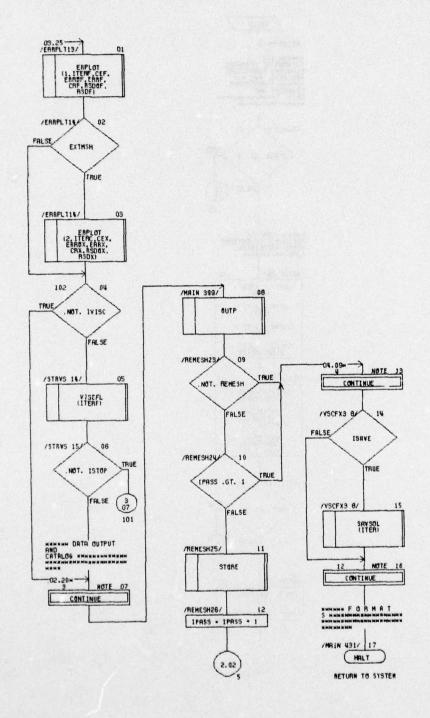
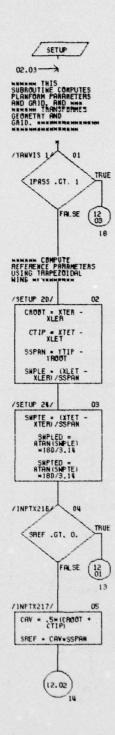
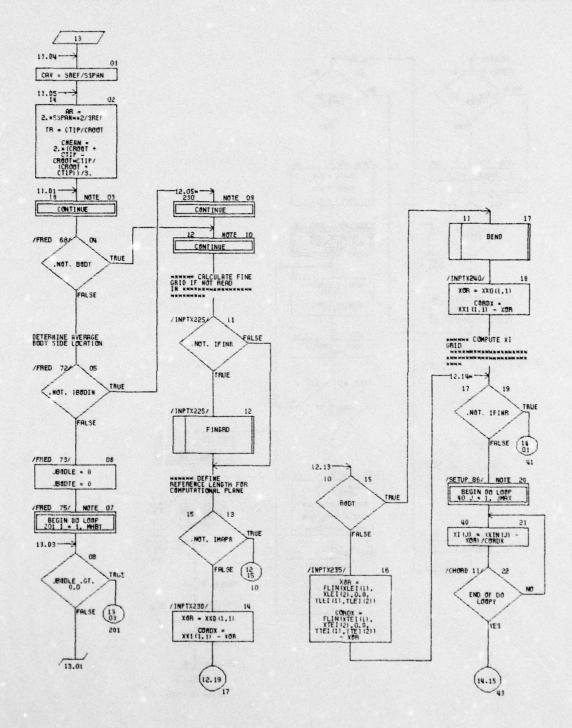
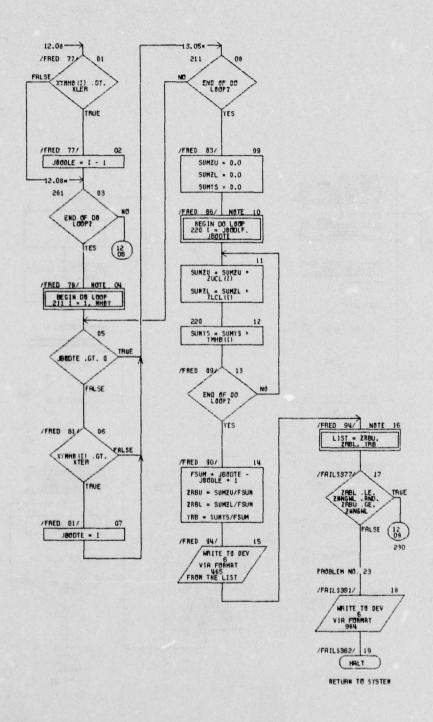


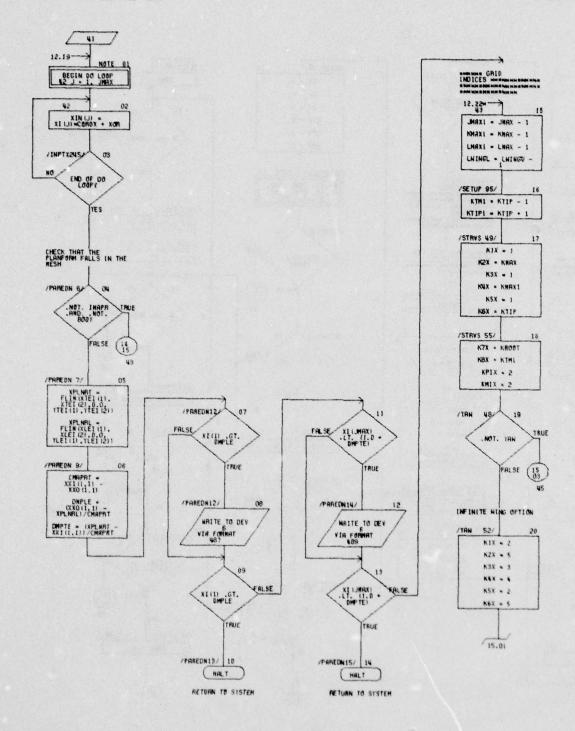
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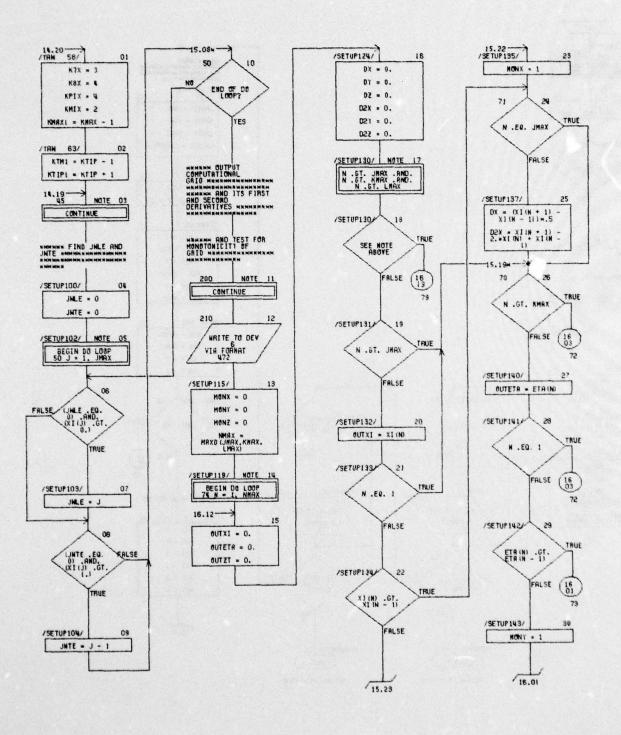


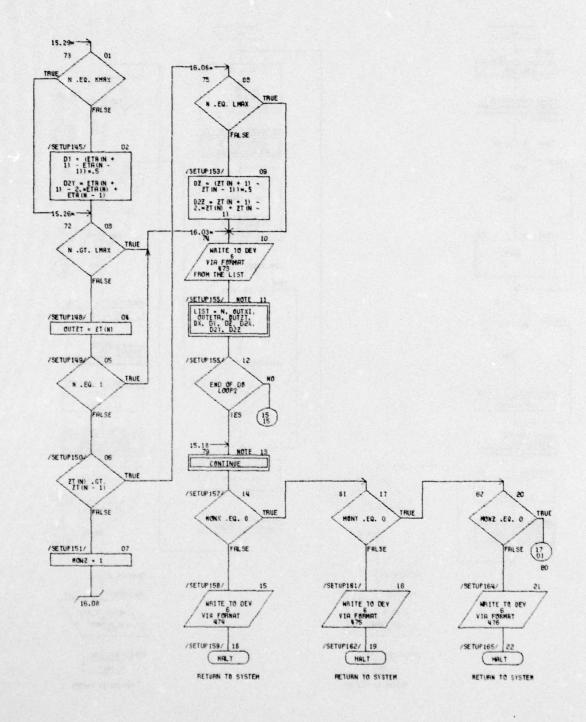












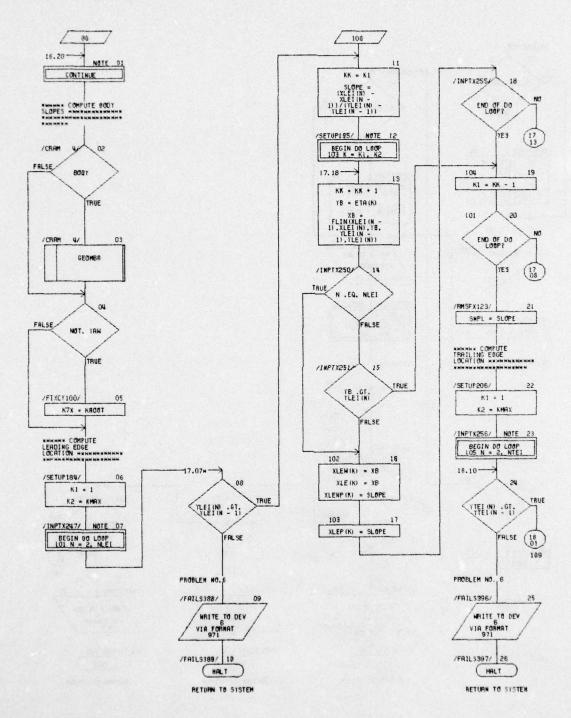
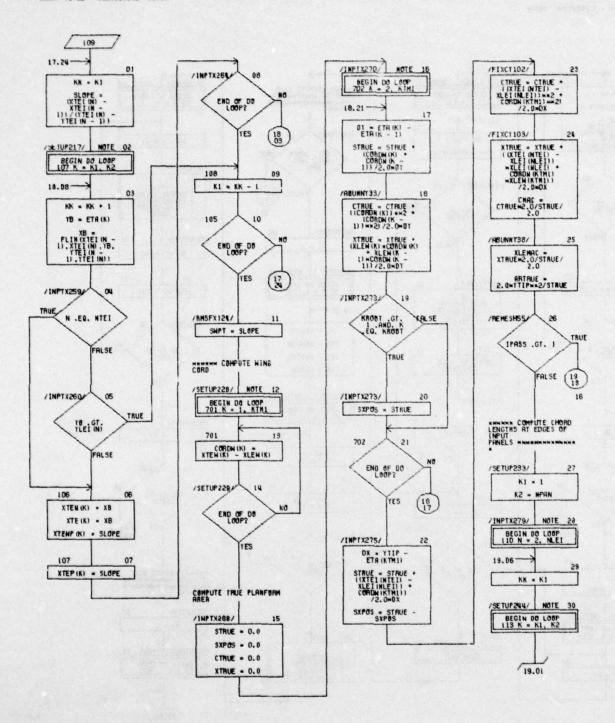
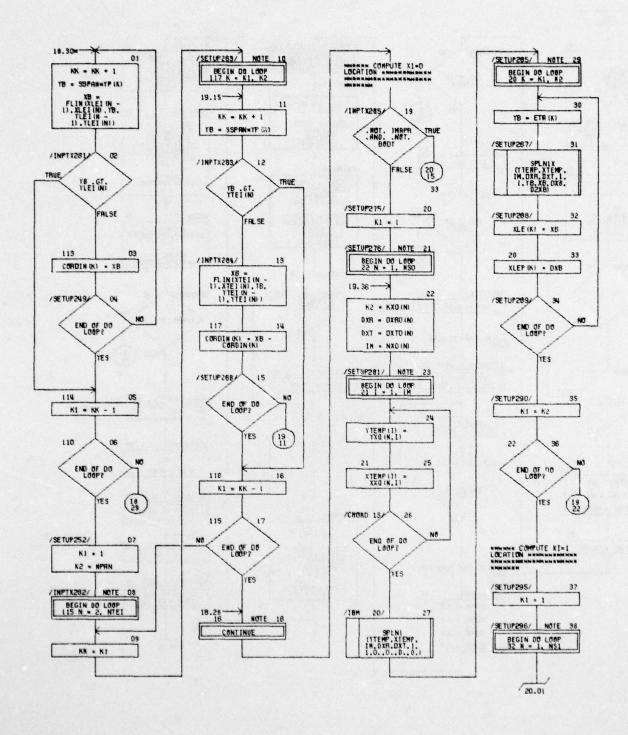
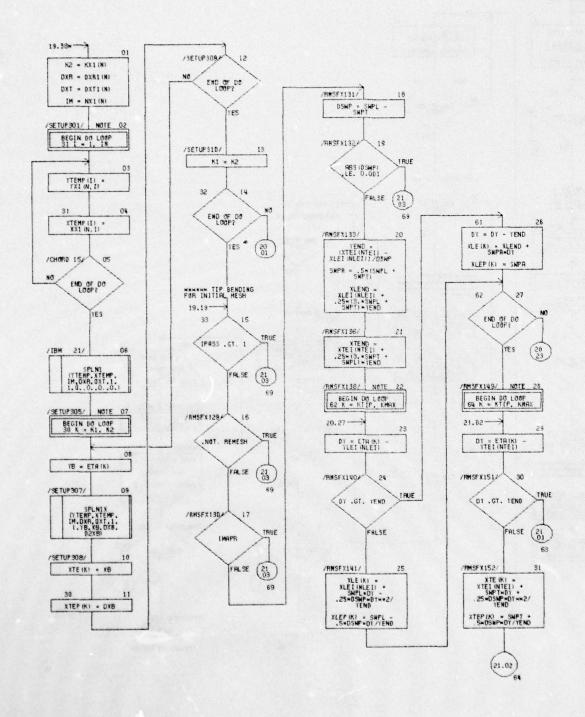


CHART TITLE - SUBROUTINE SETUP







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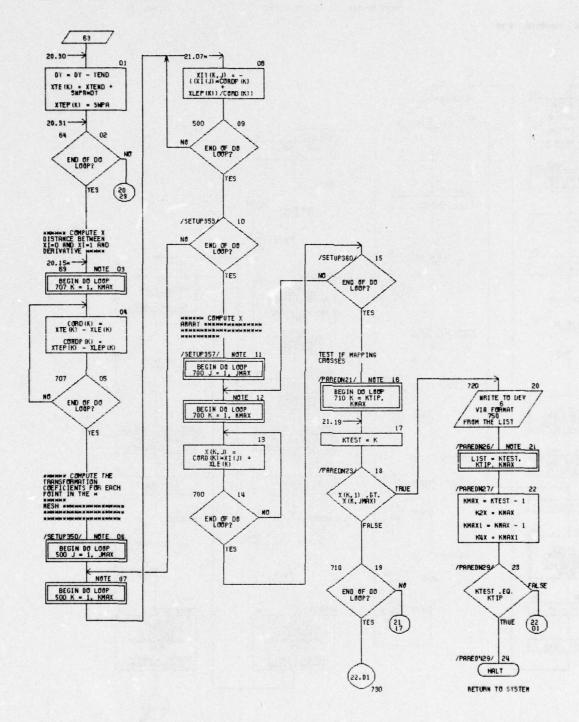
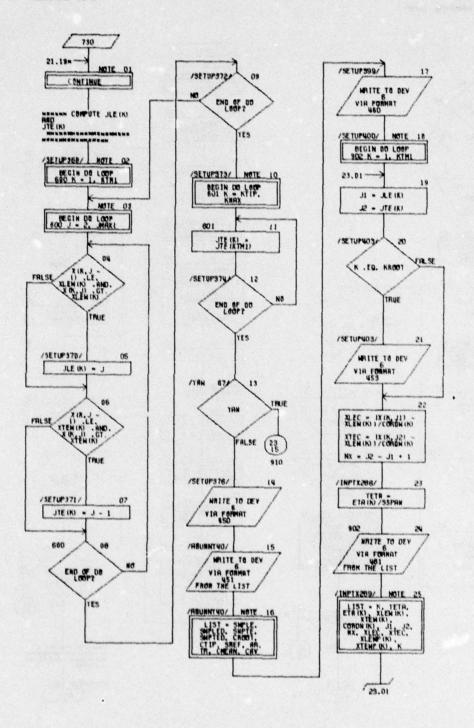
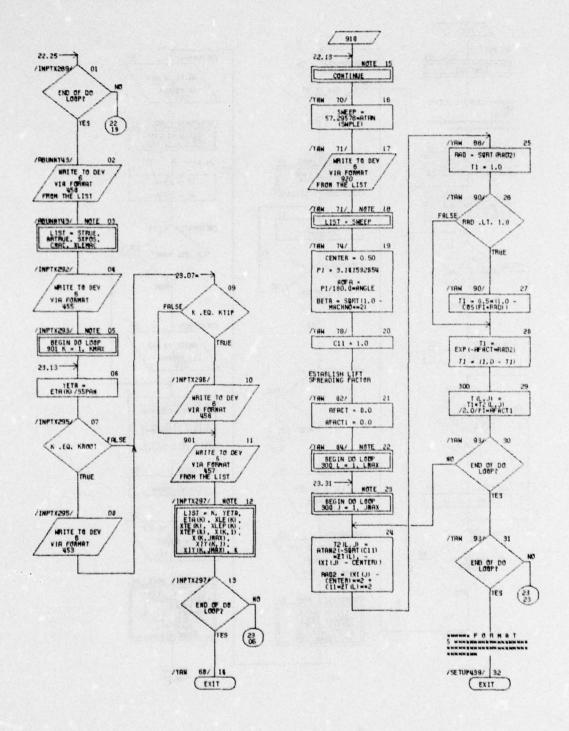


CHART TITLE - SUBROUTINE SETUP





# FLOW CHART - 2

Subroutine

Autoflow Page

INPUT

1 - 28

CHRAT TITLE - SUBROUTINE INPUT

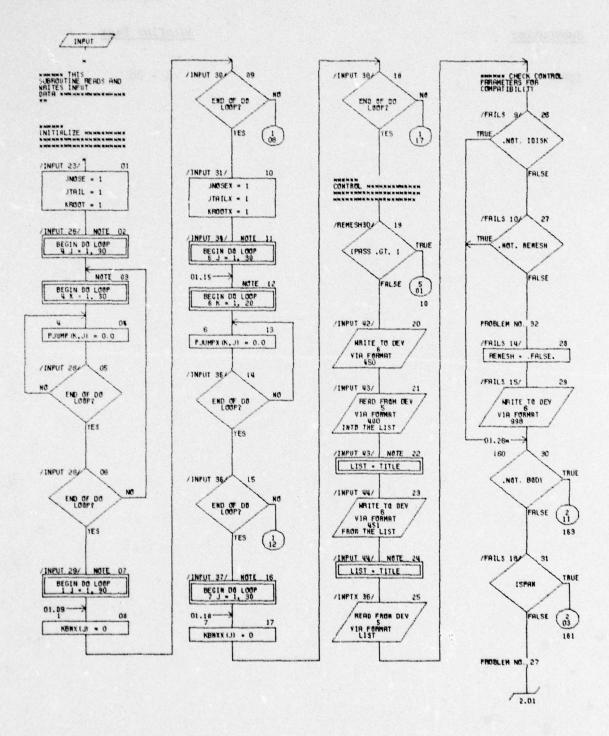


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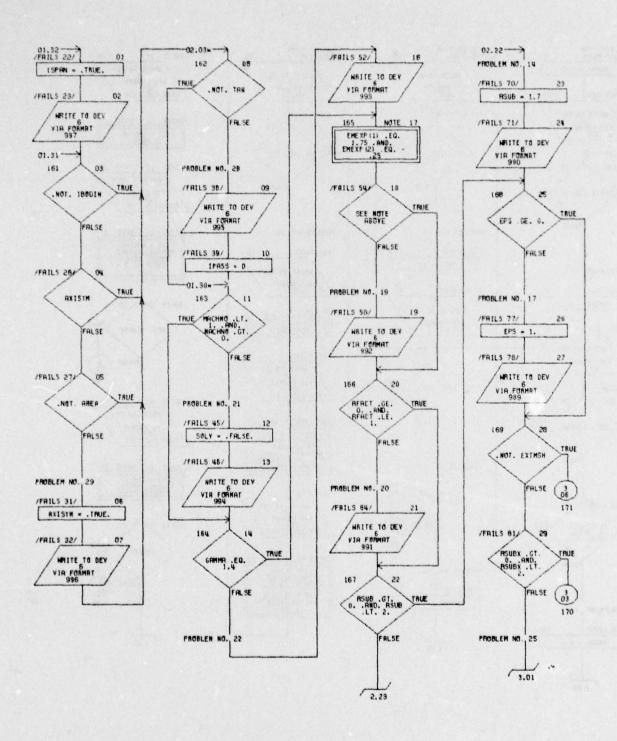
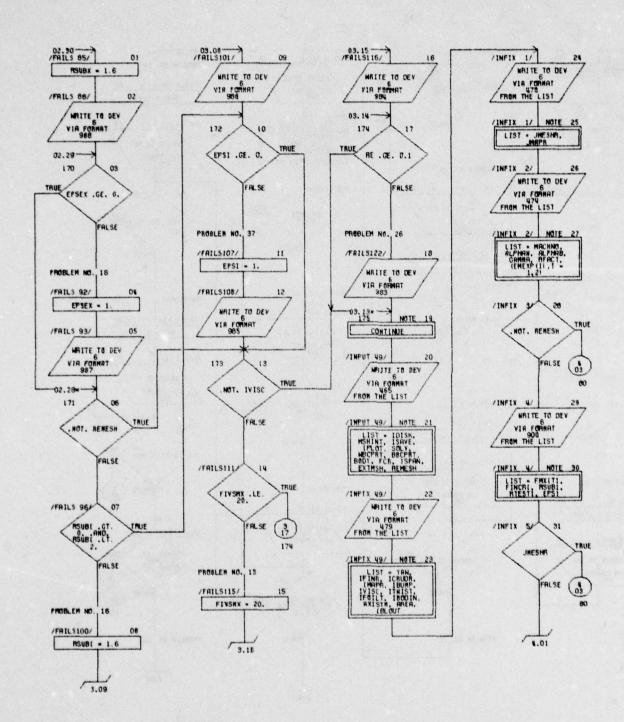
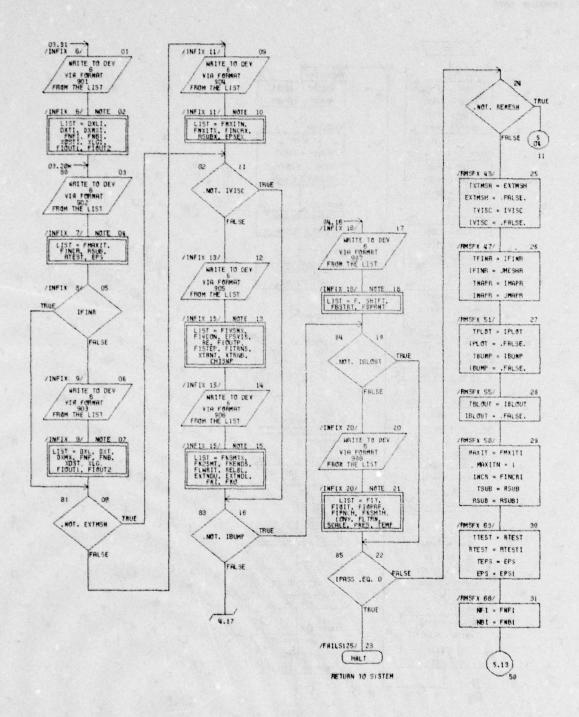
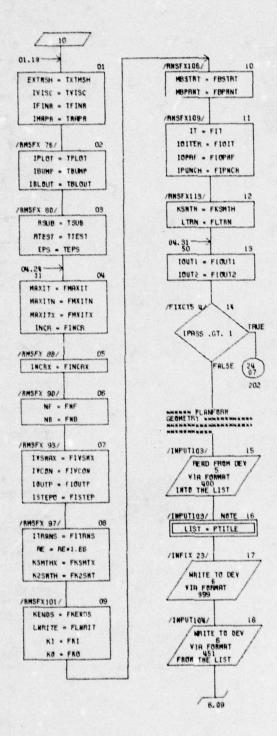
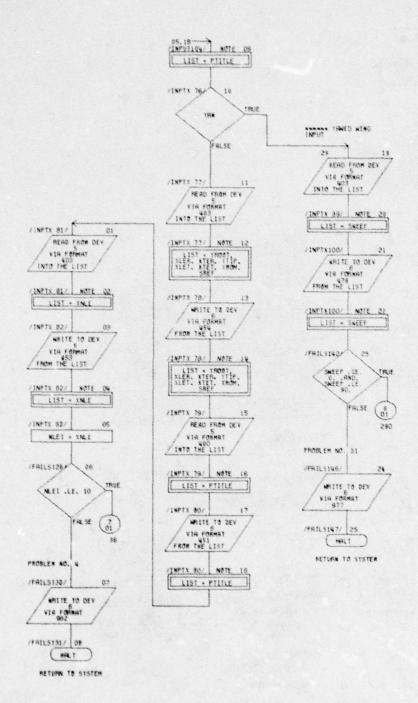


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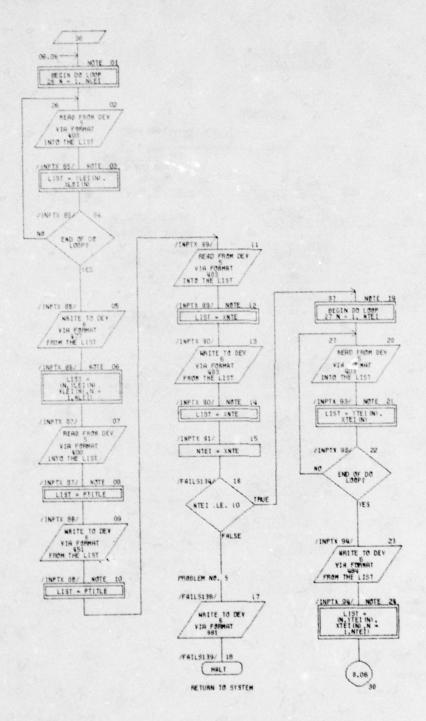


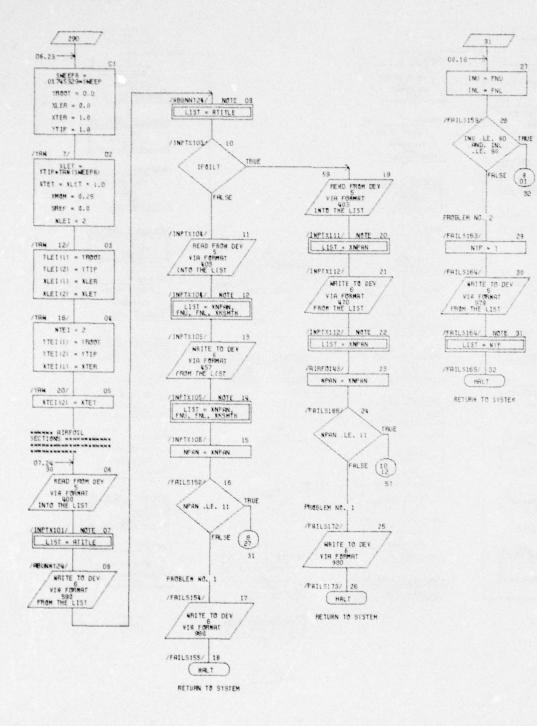


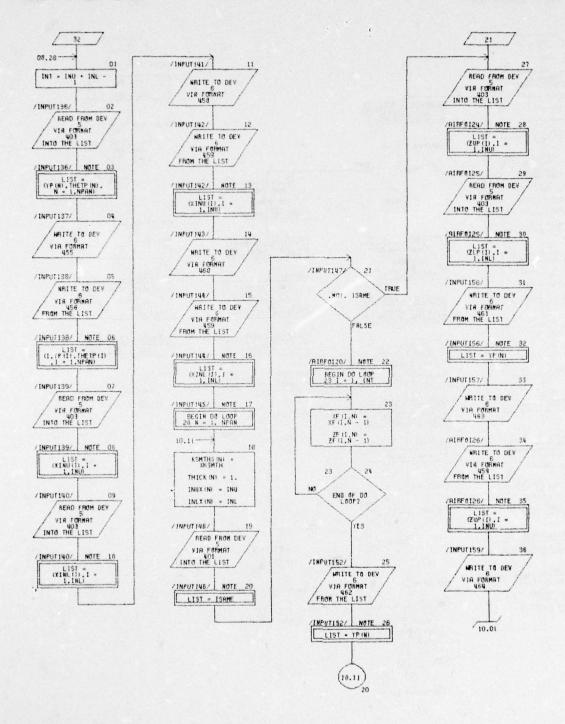


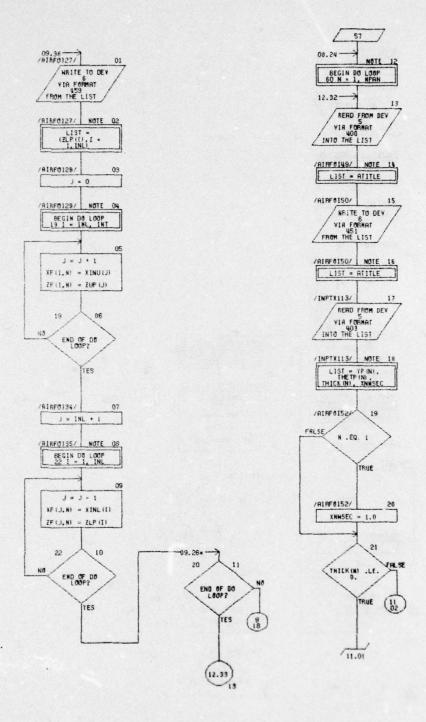


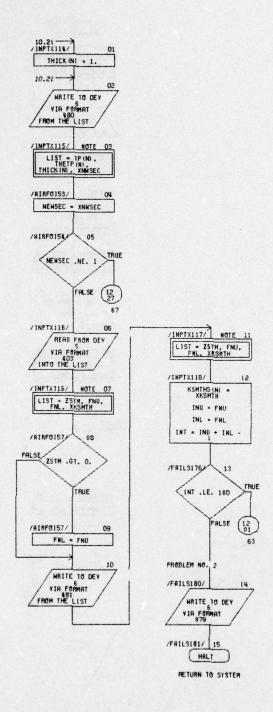
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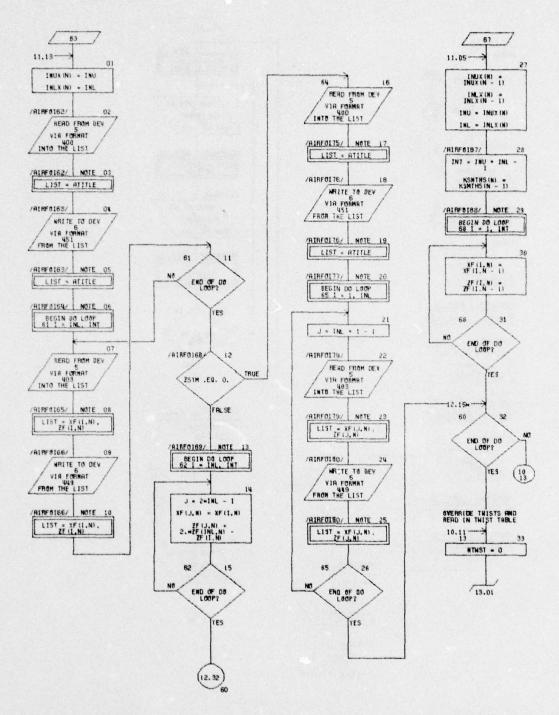


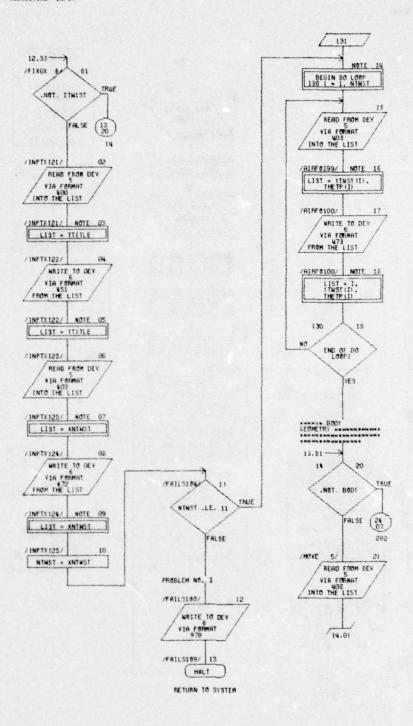


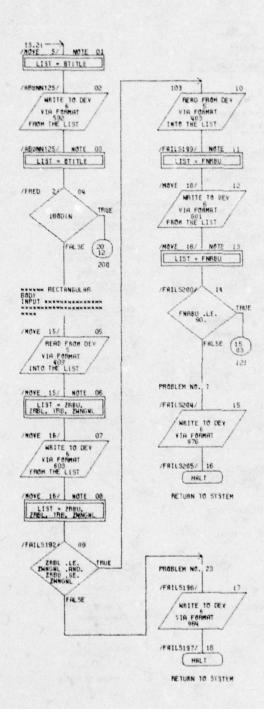


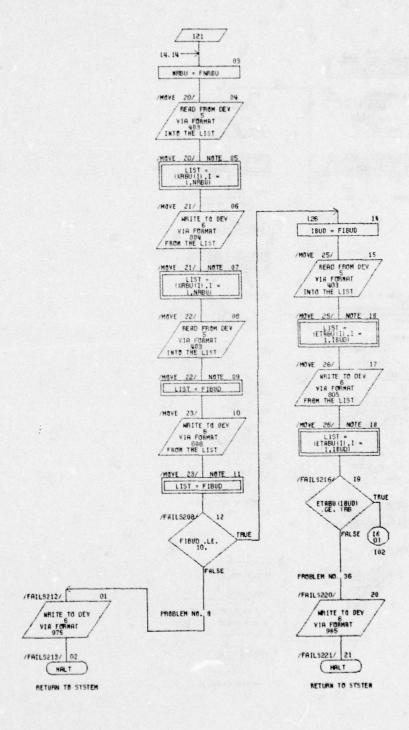


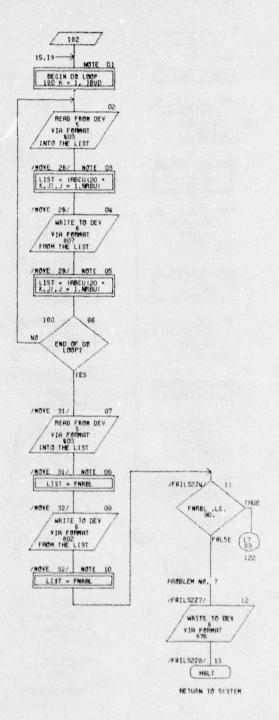


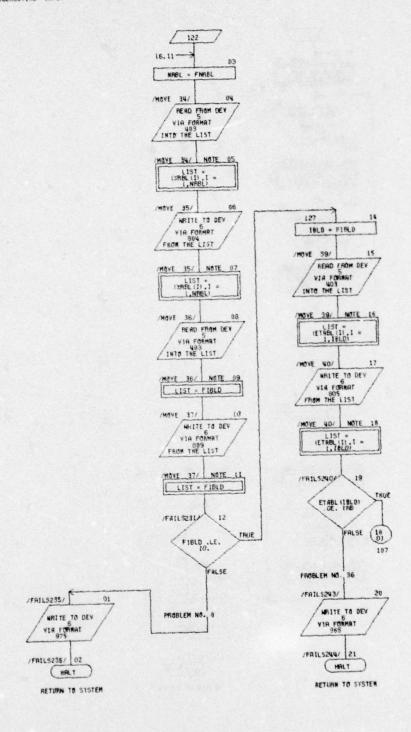


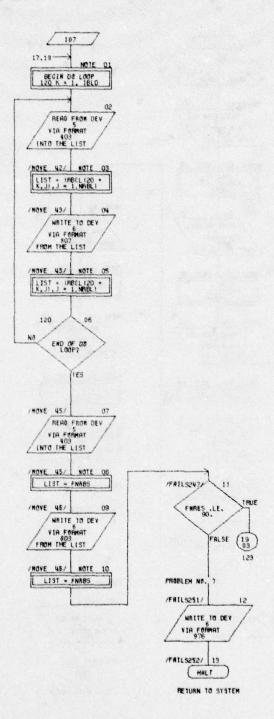


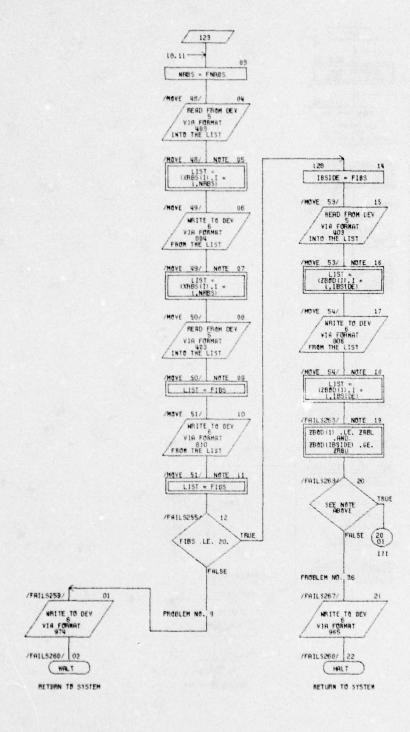


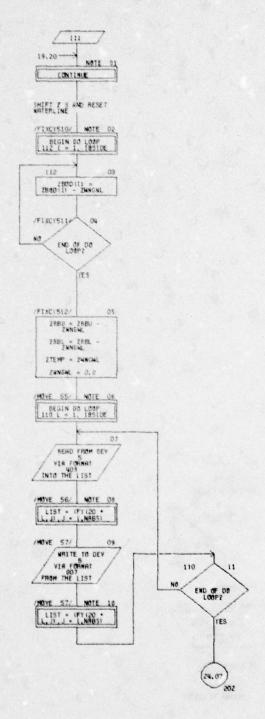












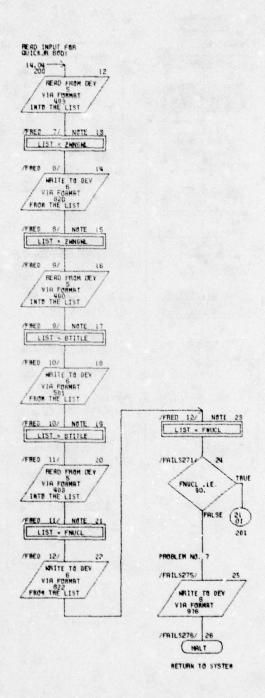


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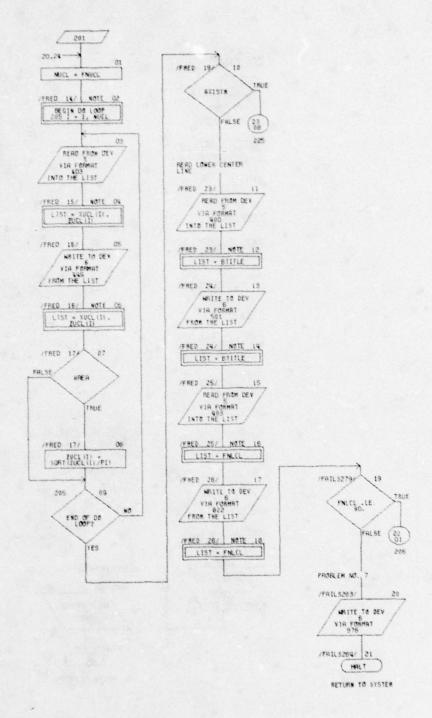
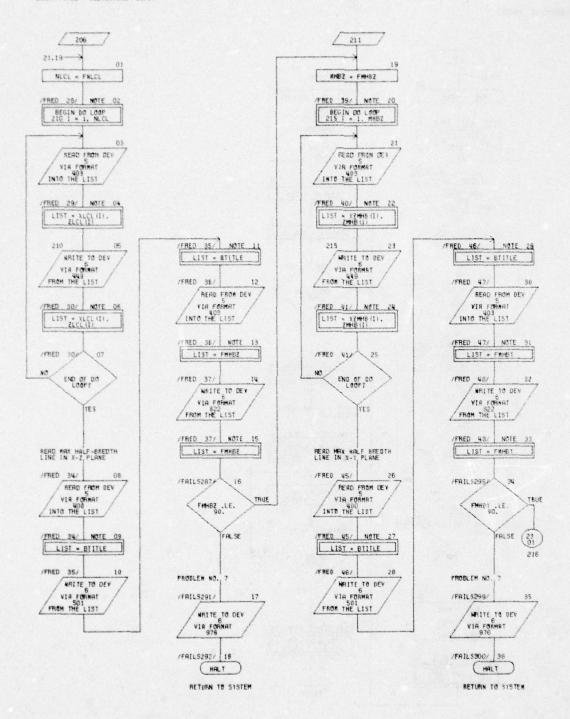
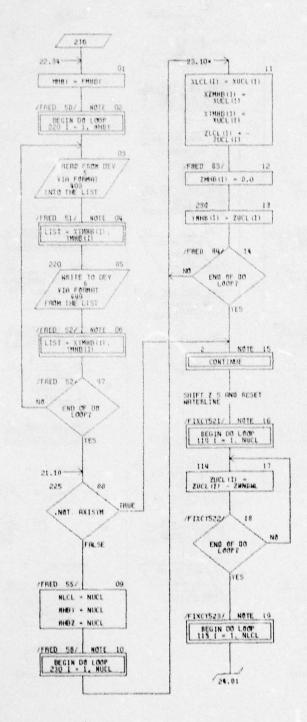
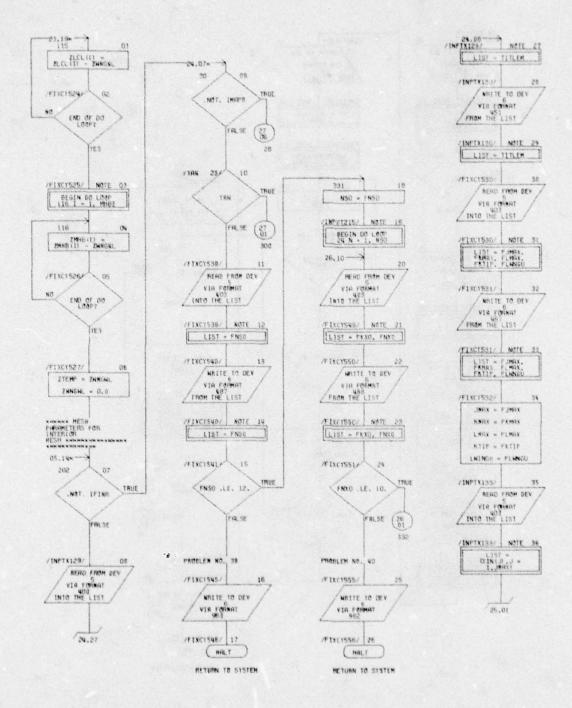
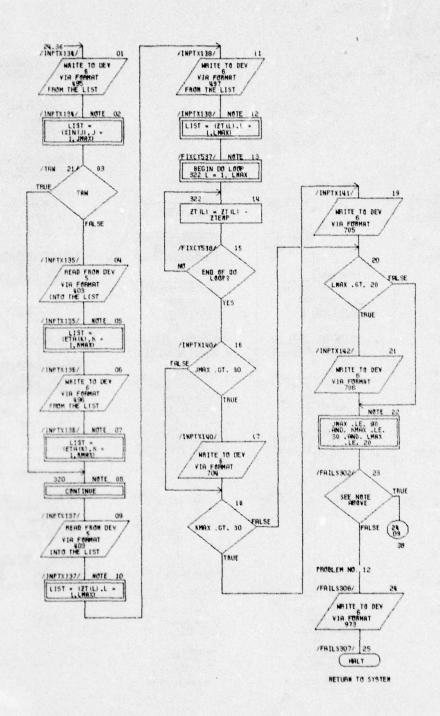


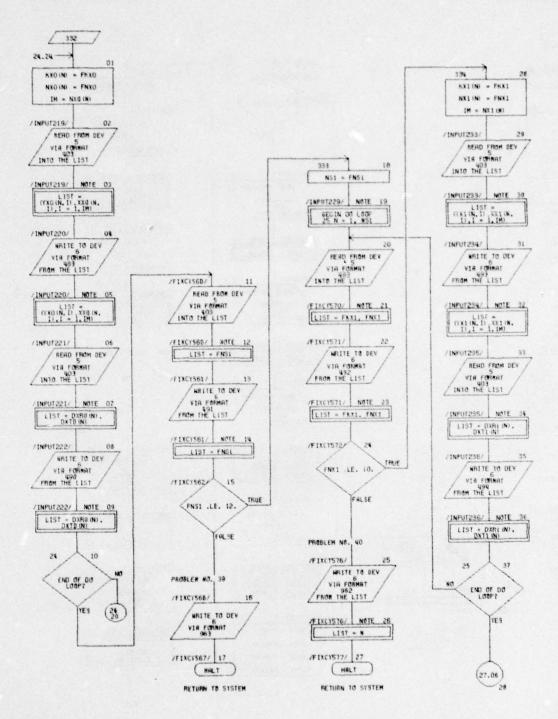
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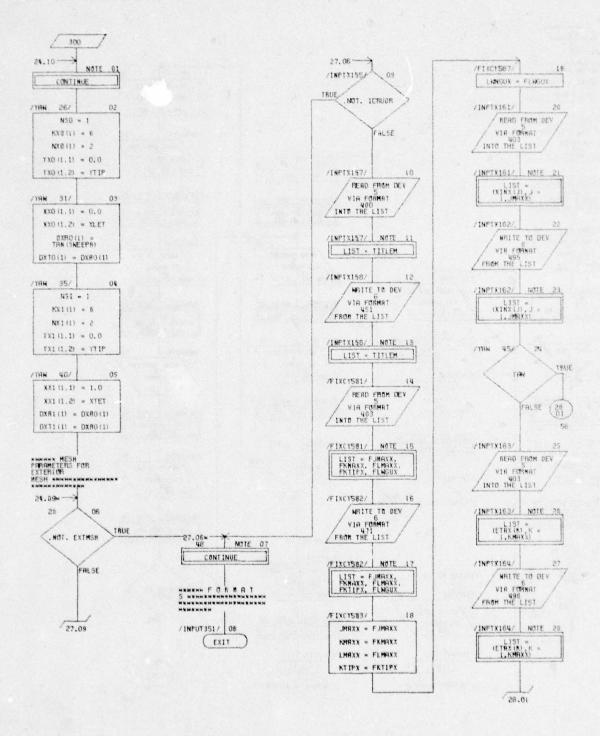


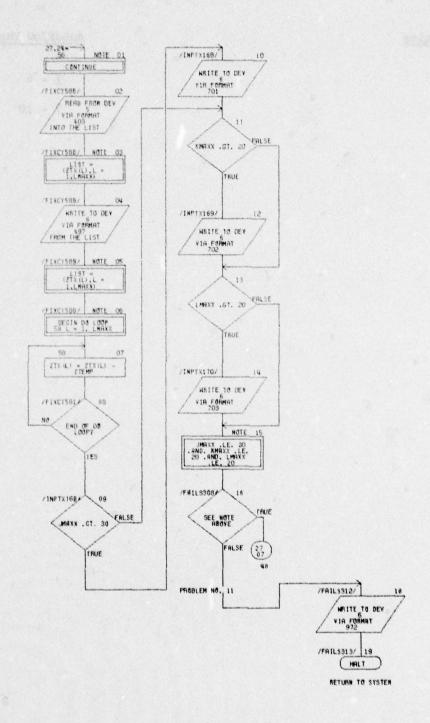












## FLOW CHART - 3

Subroutine	Autoflow Page
SETUPX	1 - 4
GEOMB	7 - 10

CHART TITLE - SUBMOUTINE SETUPX

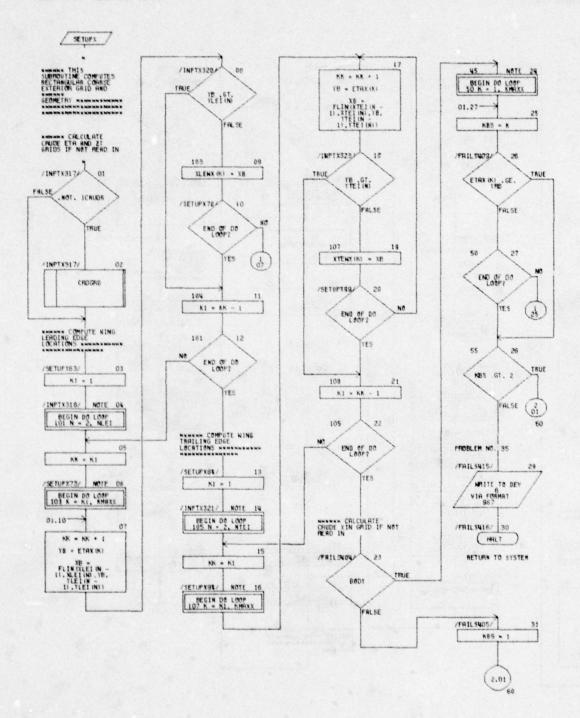
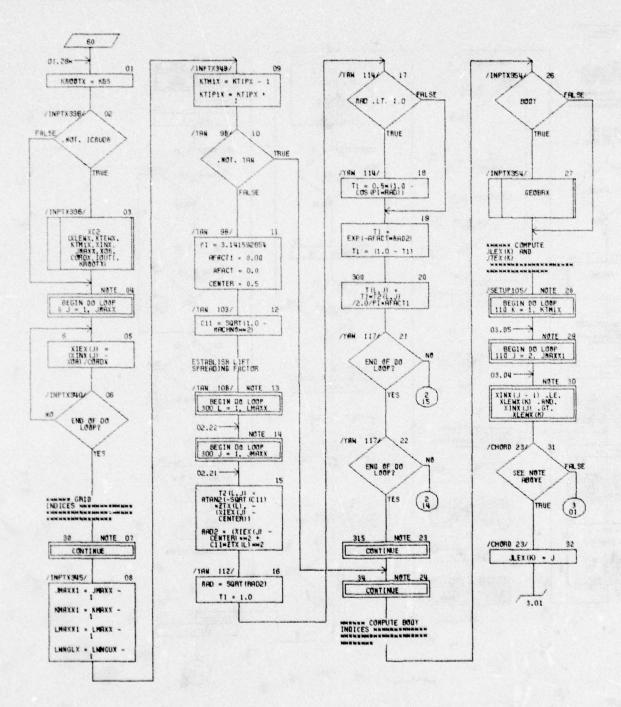
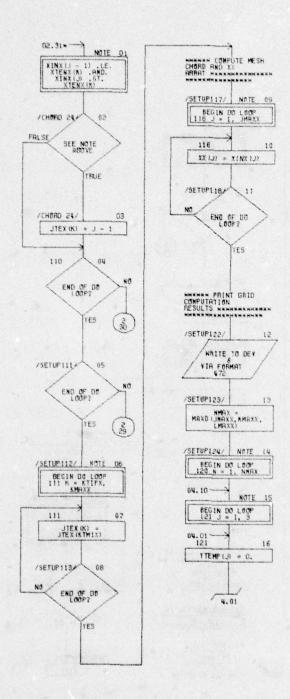
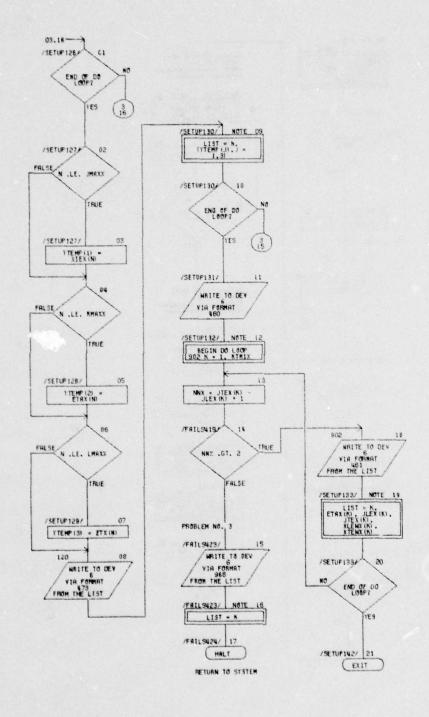


CHART TITLE - SUBMOUTINE SETUPX







CHRAT TITLE - SUBROUTINE GEONS

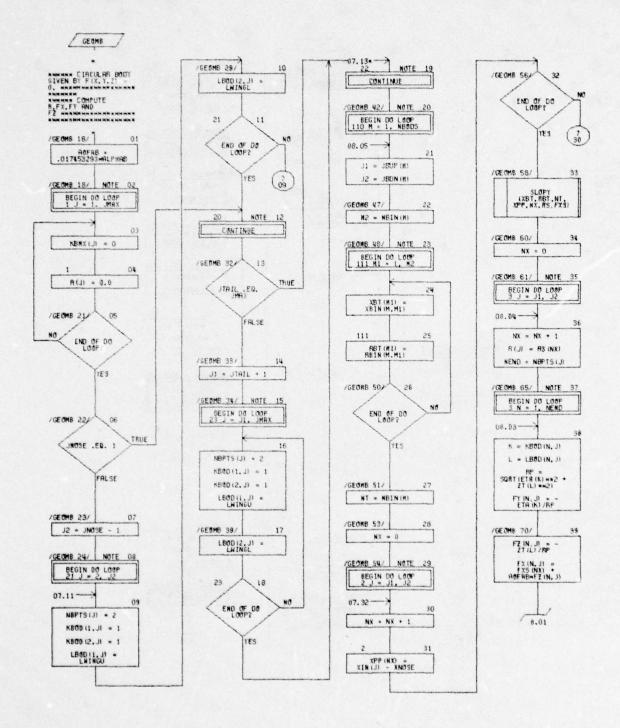
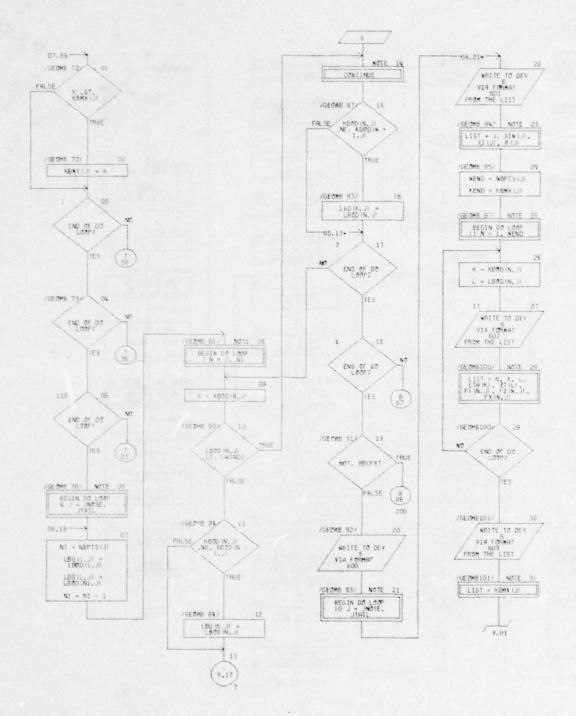


CHART TITLE - SUBBOUTINE GEORD



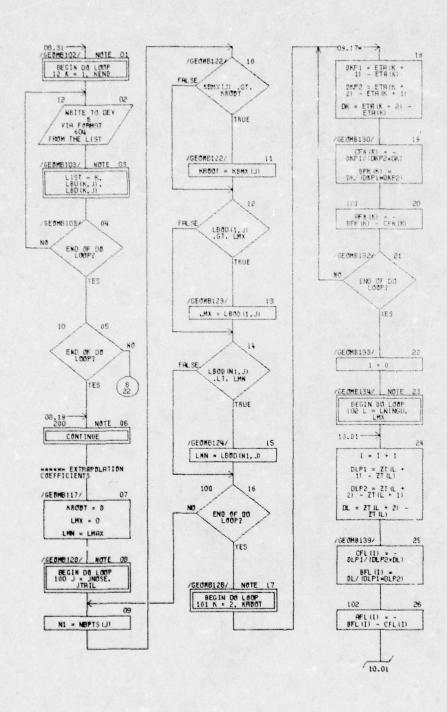
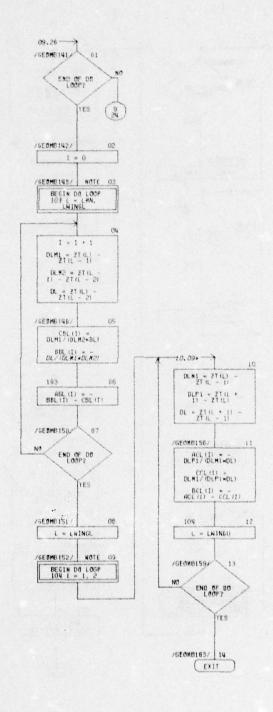


CHART TITLE - SUBROUTINE GEOMB



## FLOW CHART - 4

Subroutine	Autoflow Page
GEOMBR	1 - 6
GEOBRX	9 - 14
TCOEF	17 - 19
TCOEFX	22 - 23
MESHIN	25 - 28

CHART TITLE - SUBMOUTINE GEOMBA

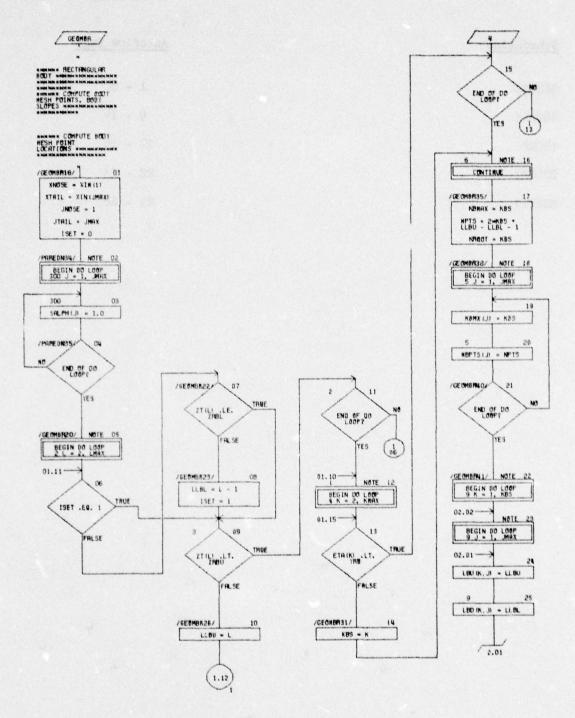


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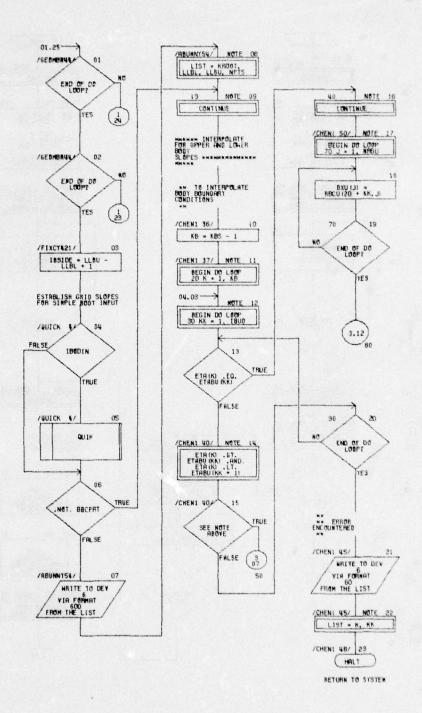


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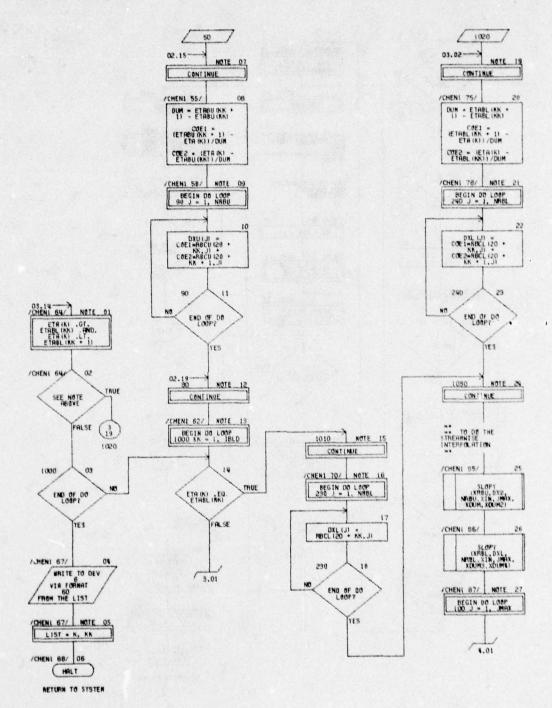
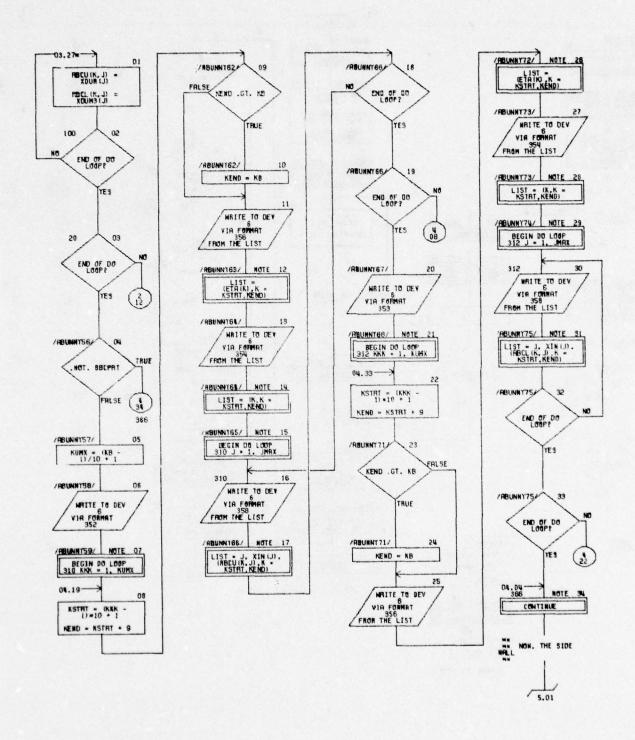


CHART TITLE - SUBMOUTINE GEORGA



CHRRT TITLE - SUBMOUTINE GEOMER

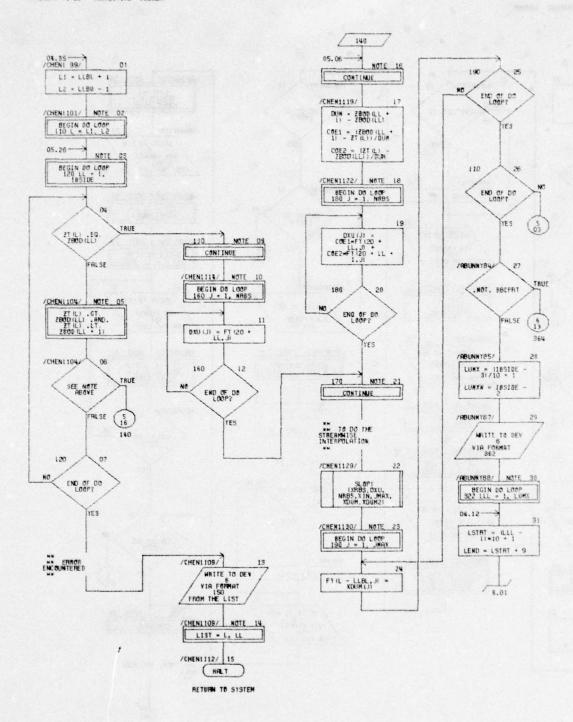


CHART TITLE - SUBROUTINE GEOMBA

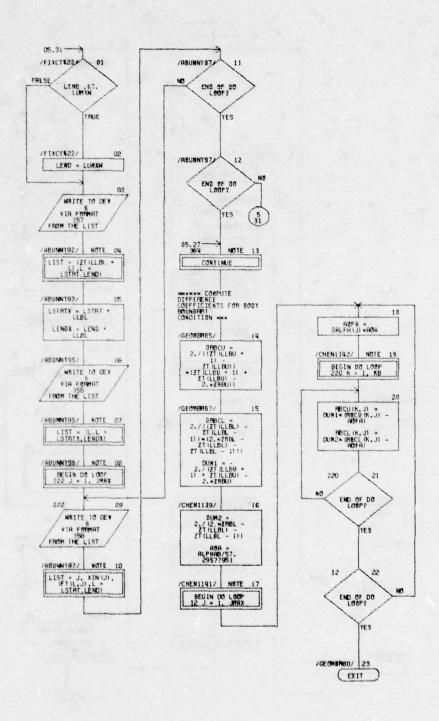
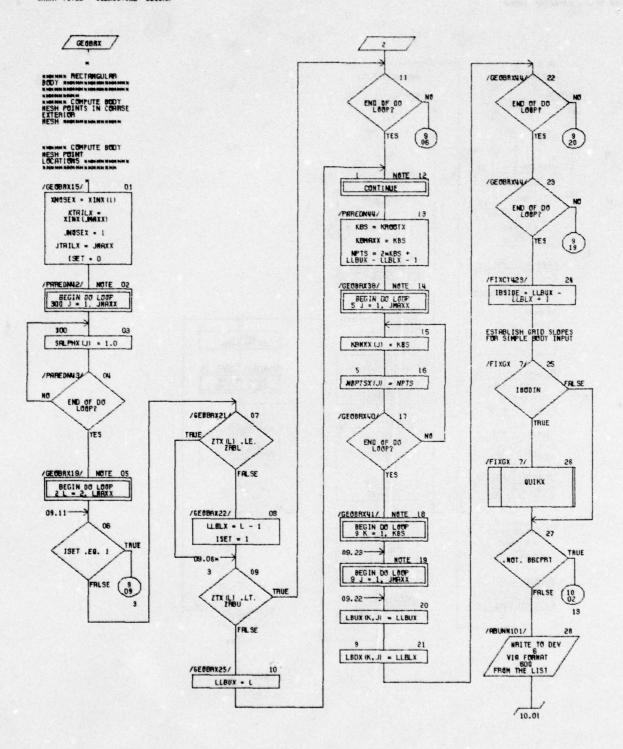


CHART TITLE - SUBMOUTINE GEORRY



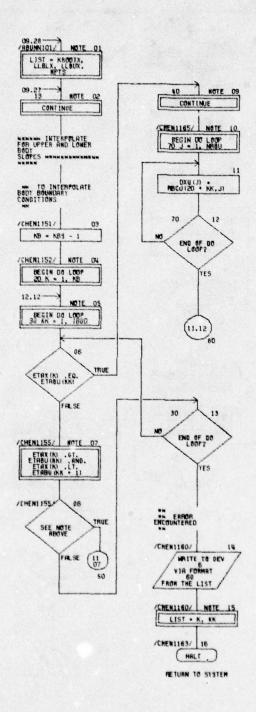


CHART TITLE - SUBROUTINE GEOBEX

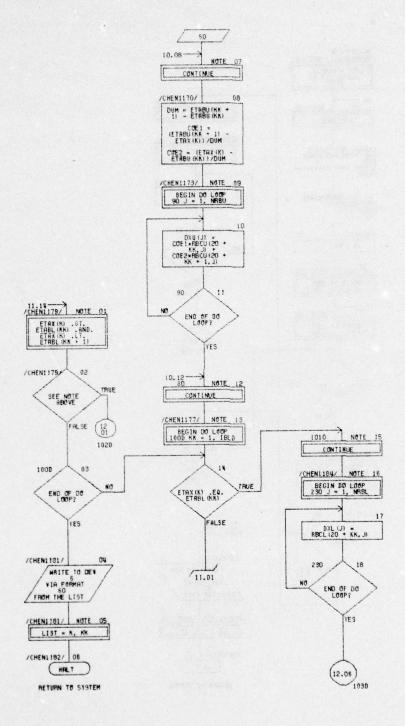


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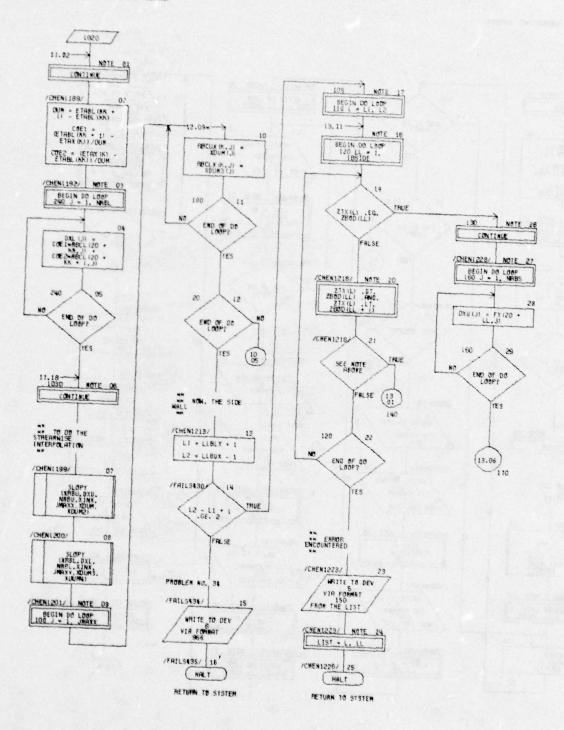
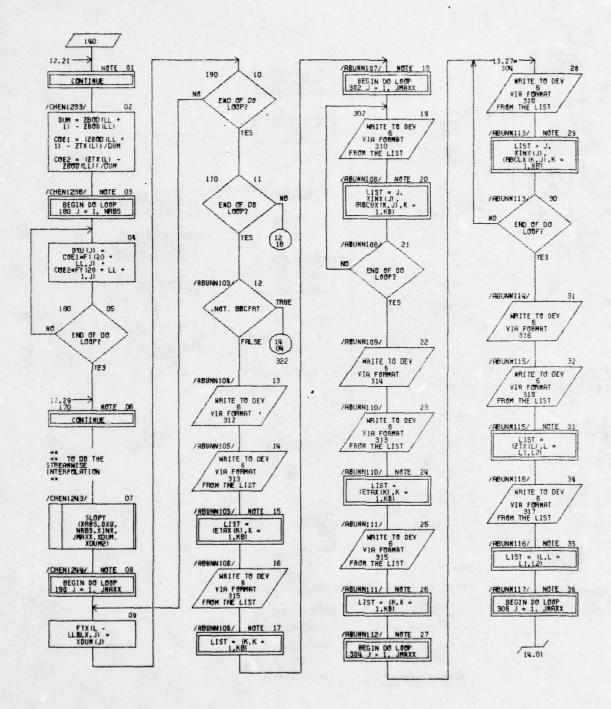


CHART TITLE - SUBPOUTINE GEOBEX



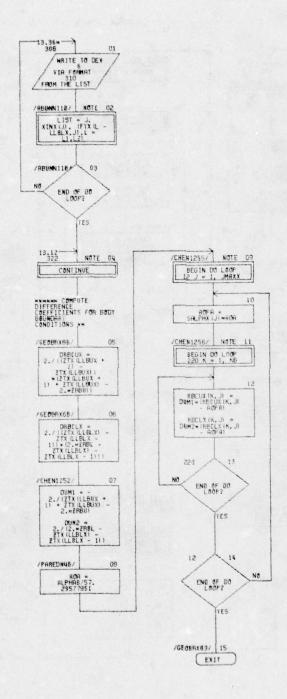


CHART TITLE - SUBROUTINE TODEF

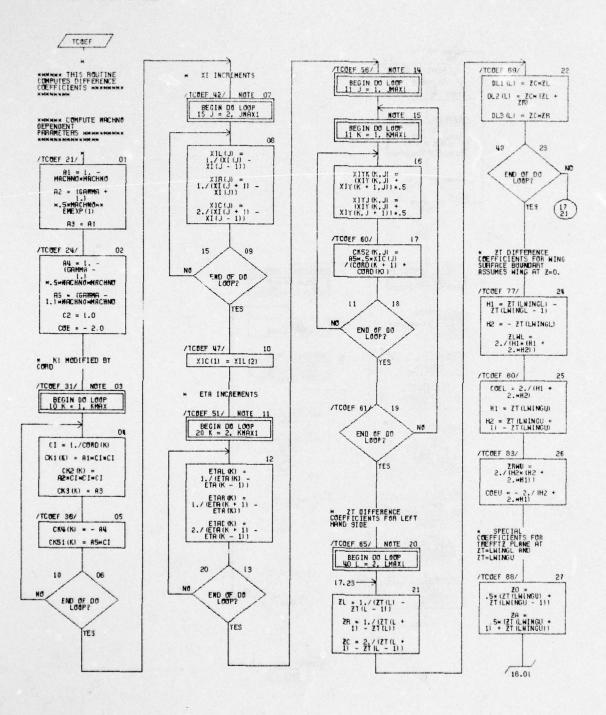


CHART TITLE - SUBMODYINE TESEF

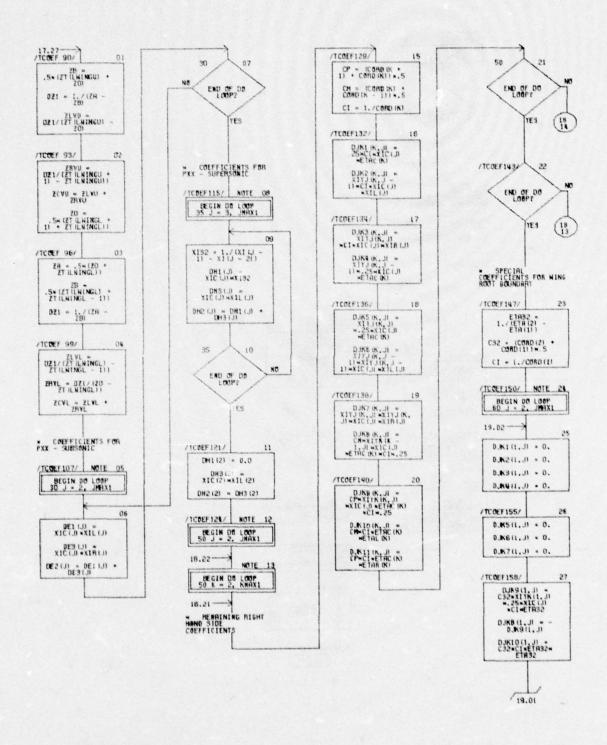


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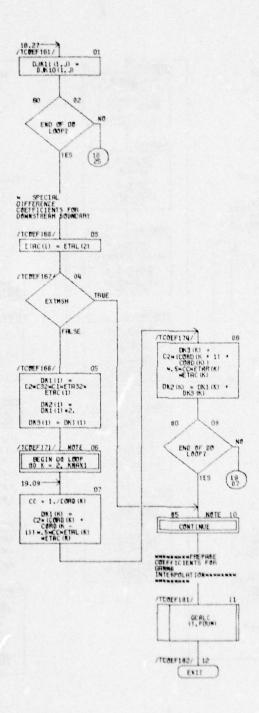
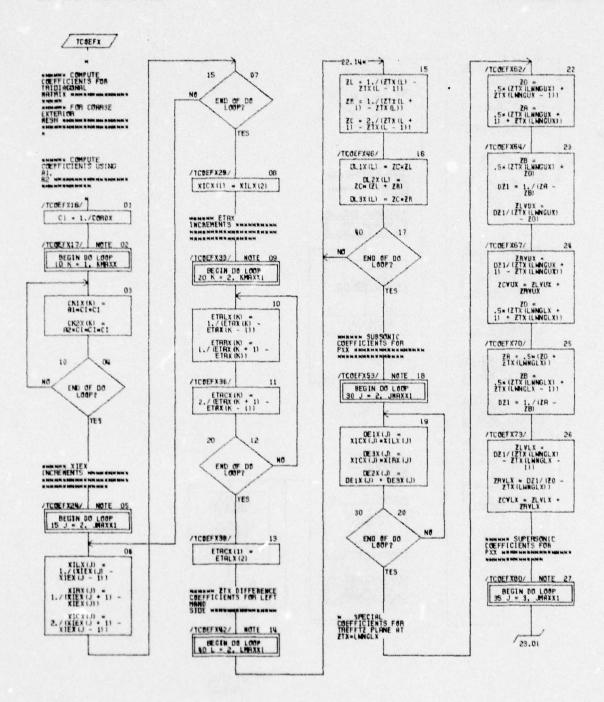


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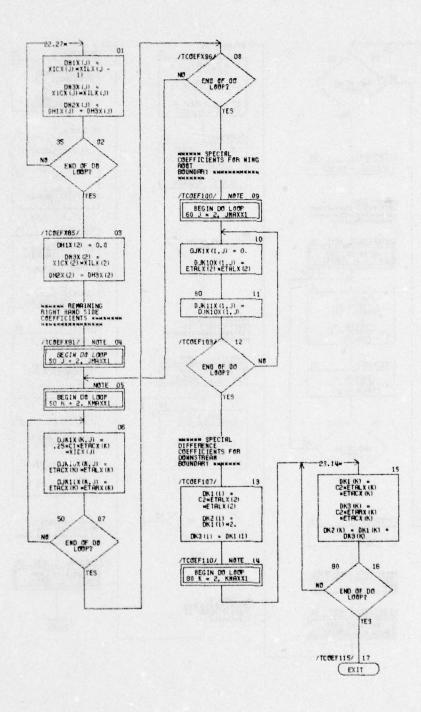


CHART TITLE - SUBROUTINE MESHIN

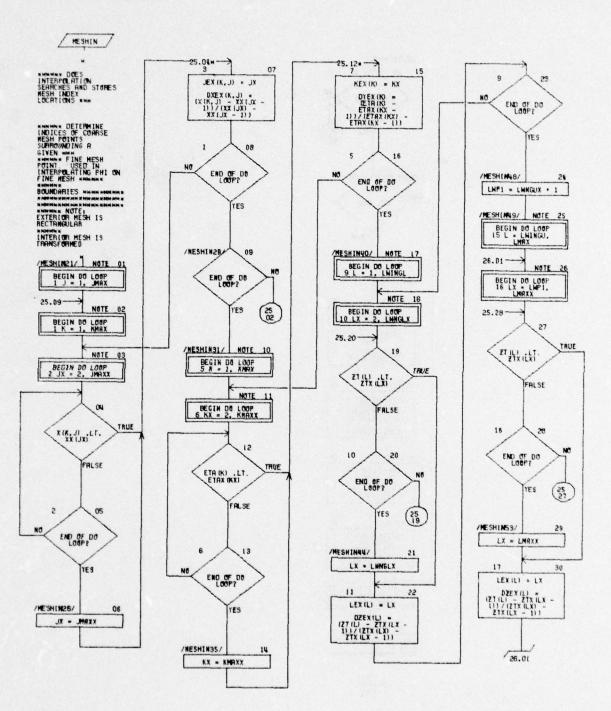
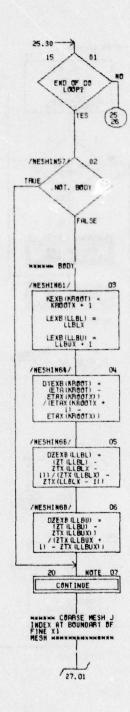


CHART TITLE - SUBBOUTINE MESHIN



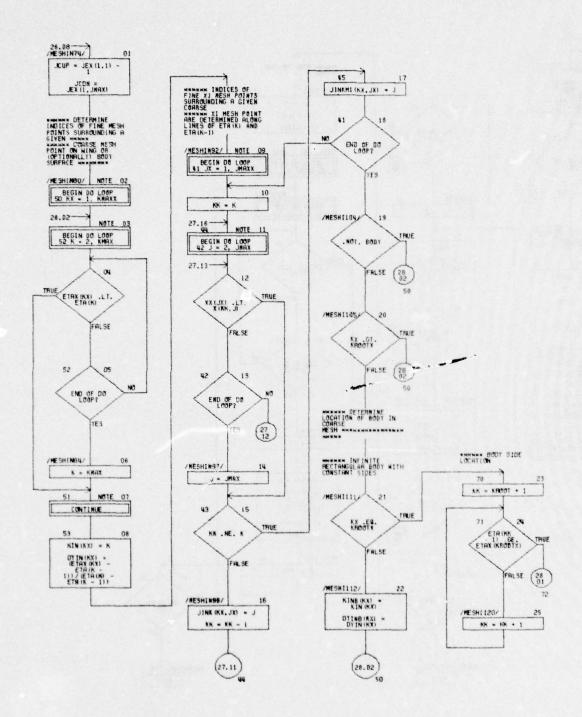
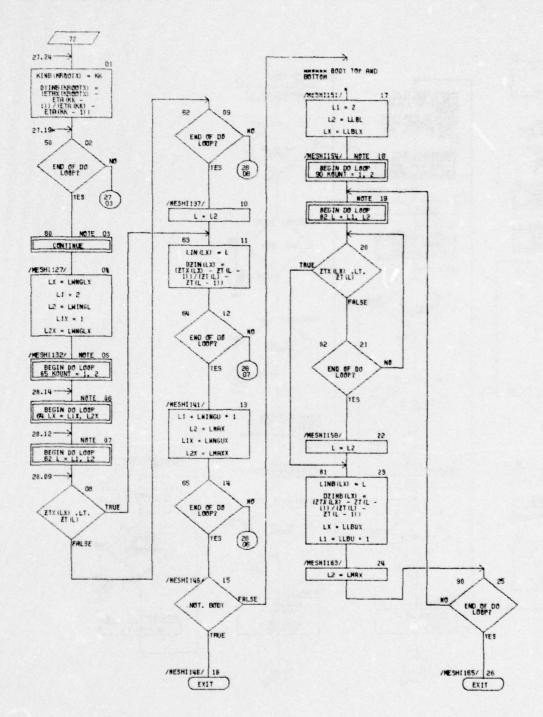


CHART TITLE - SUGROUTINE MESHIN



## FLOW CHART - 5

Subroutine

Autoflow Page

WINGCO

1 - 4

CHART TITLE - SUBROUTINE WINGCO

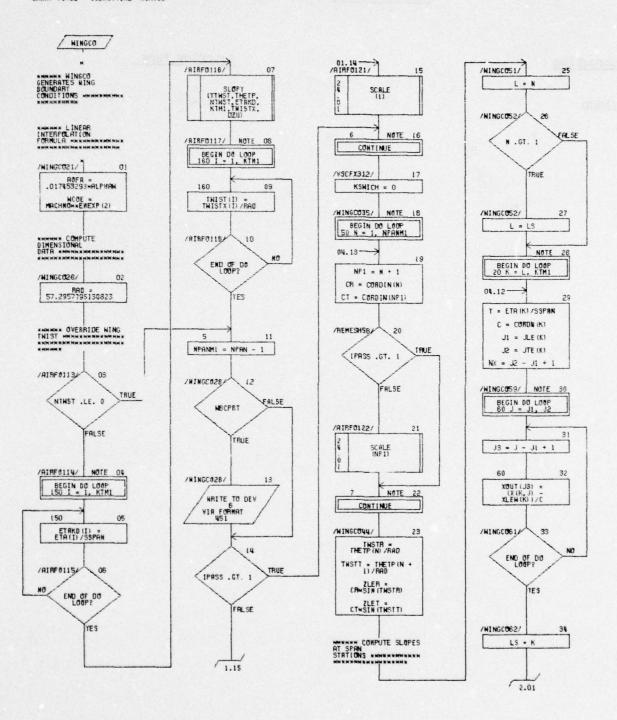
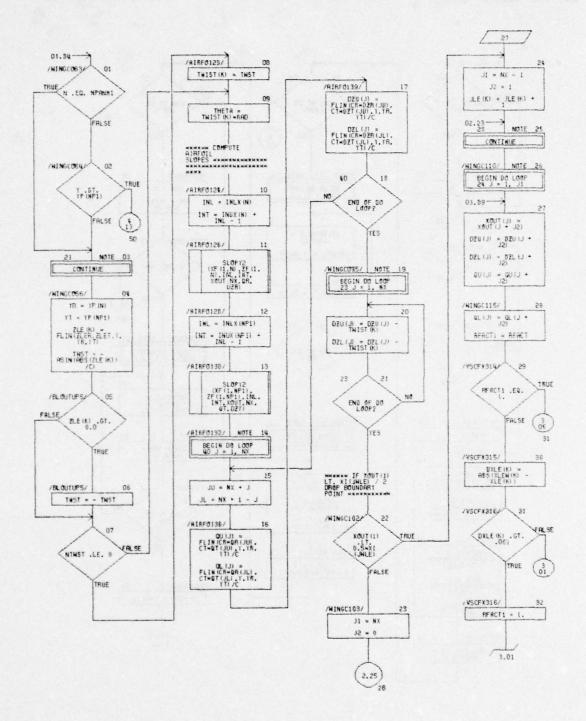


CHART TITLE - SUBBOUTINE WINGCO



CHRRY TITLE - SUBROUTINE NINGCO

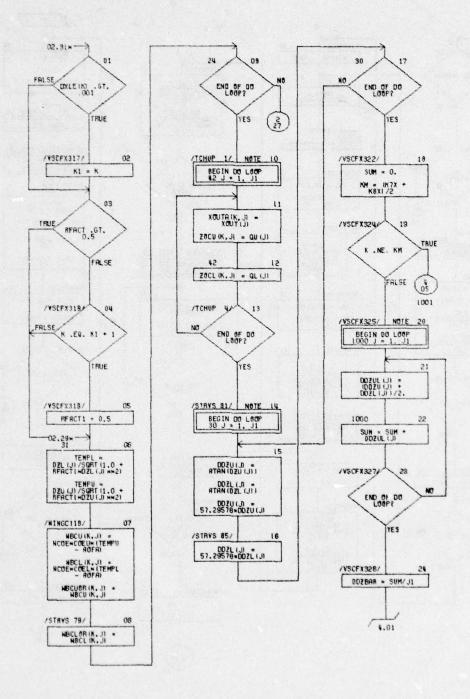
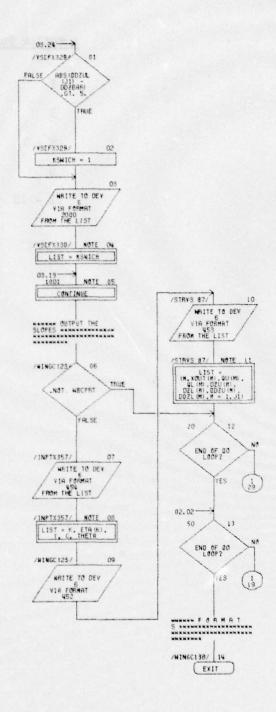


CHART TITLE - SUBROUTINE WINGED



## FLOW CHART - 6

Subroutine	Autoflow Page
TOPBOD	1
SLOPY	3
SPINI	5 - 7
SMTH	9
IC	11 - 18

CHART TITLE - SUBROUTINE TOPBOD

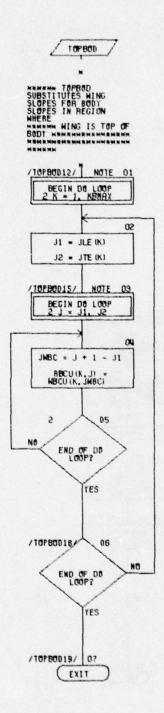


CHART TITLE - SUBROUTINE SLOPY (XX, YY, NN. XQUT, NXX, Z. DZ)

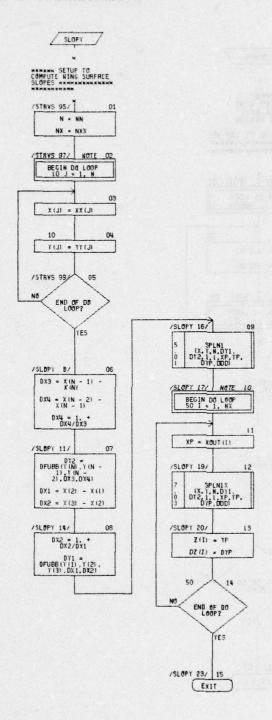


CHART TITLE - SUBMOUTINE SPLN1 (X.Y.N.DY1. DY2.K1, K2, XP. YP. DYP. DYPP)

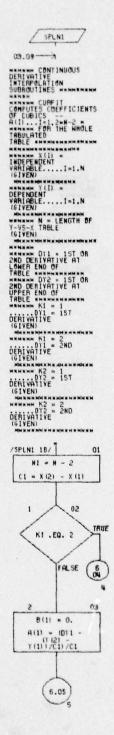


CHART TITLE - SUBROUTINE SPLNI (X.Y.N.OY; DYZ.KI, KZ. XP. YP.DYP. UYPP)

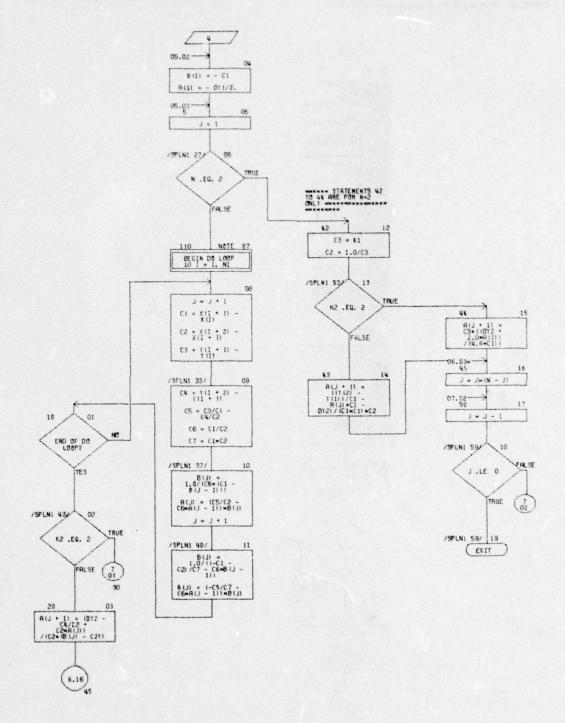


CHART TITLE - SUBROUTINE SPLN1 (X.Y.N.DY1, DY2, K1, K2, XP. YP. DYP, DYPP)

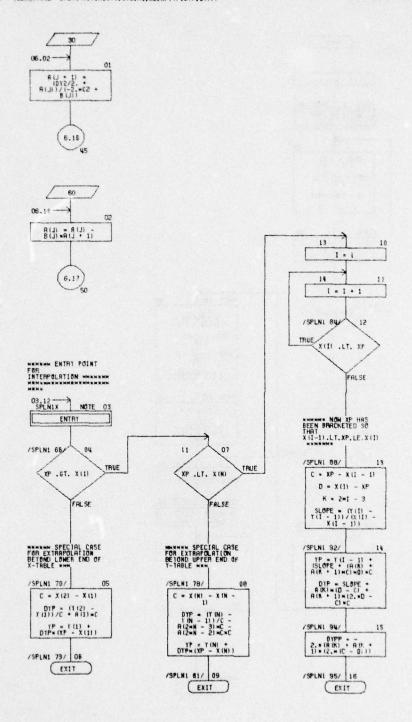


CHART TITLE - SUBMOUTINE SMTH (Y.N.K.X)

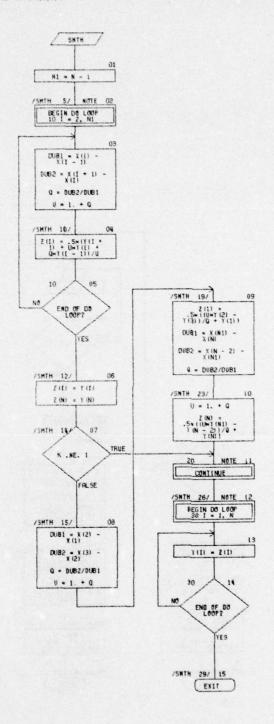


CHART TITLE - SUBROUTINE ICHTERS

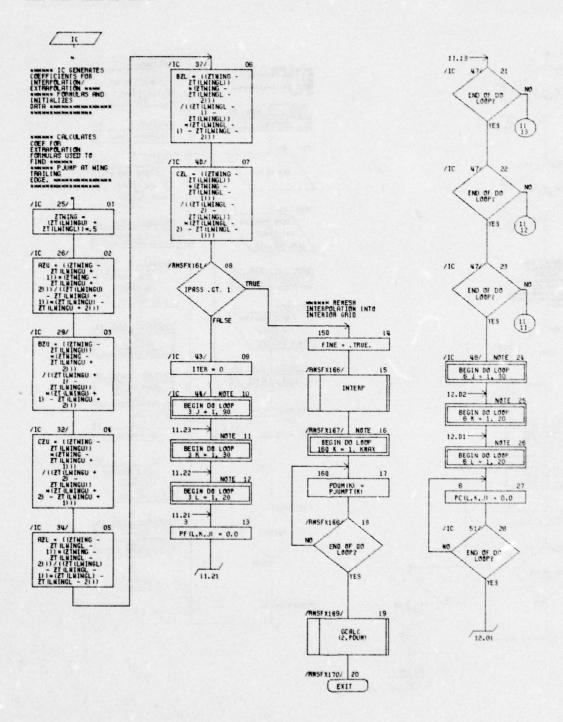
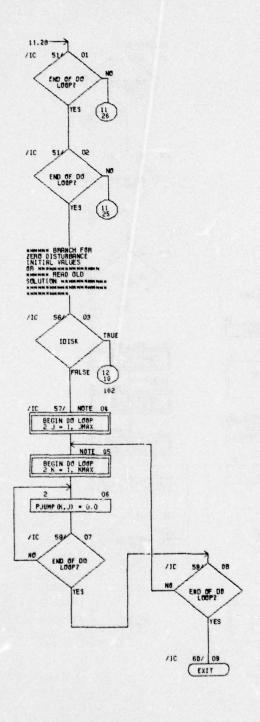


CHART TITLE - SUBBOUTINE IC (LTER)



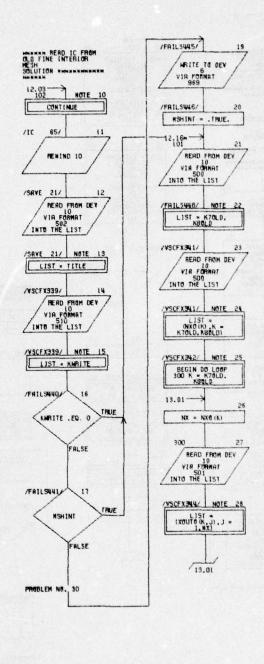


CHART TITLE - SUBNOUTINE IC (ITER)

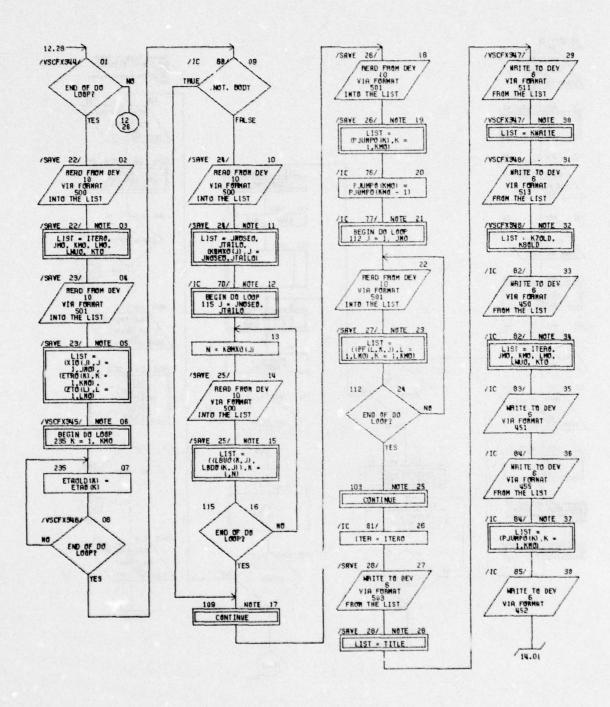


CHART TITLE - SUBROUTINE ICITER

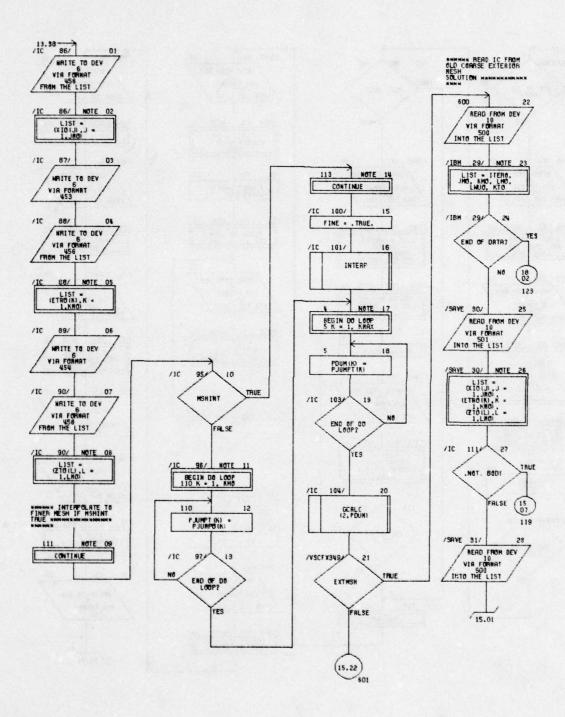


CHART TITLE - SUBROUTINE IC (LTER)

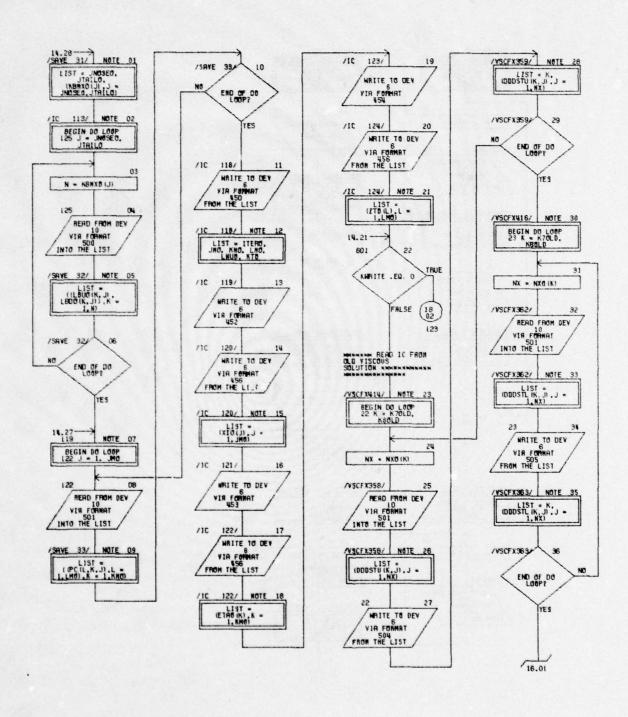


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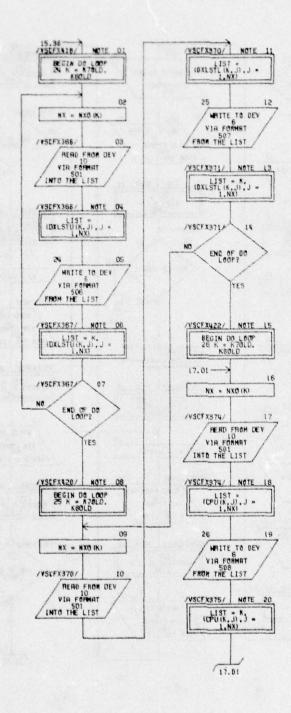
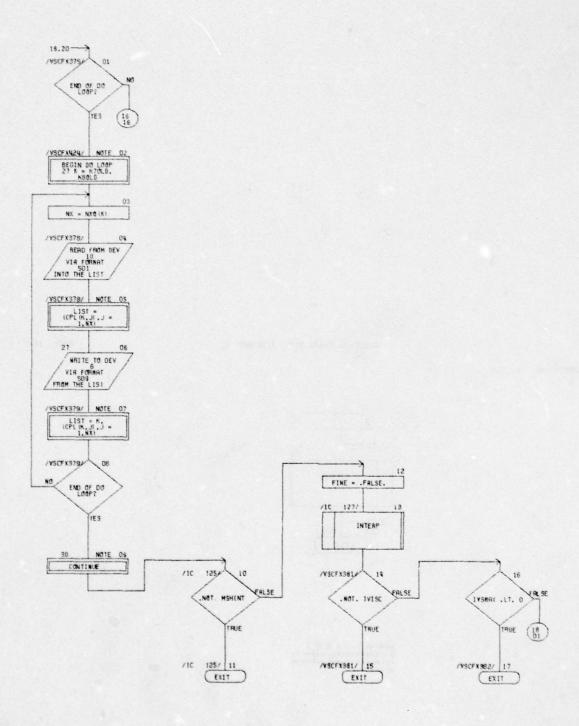


CHART TITLE - SUBROUTINE IC (ITER)

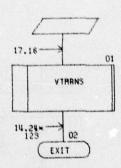


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AUTOFLON CHART SET - FLOCHART IC

PAGE 18

CHRRT TITLE - SUBMOUTINE ICHITER)



## FLOW CHART - 7

Subroutine

Autoflow Page

INTERP

7 - 11

CHART TITLE - SUBHOUTINE INTERP

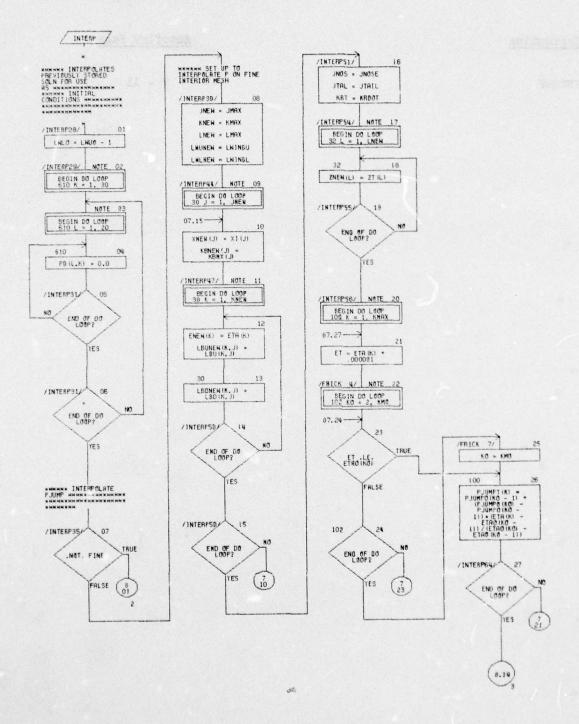


CHART TITLE - SUBROUTINE INTERP

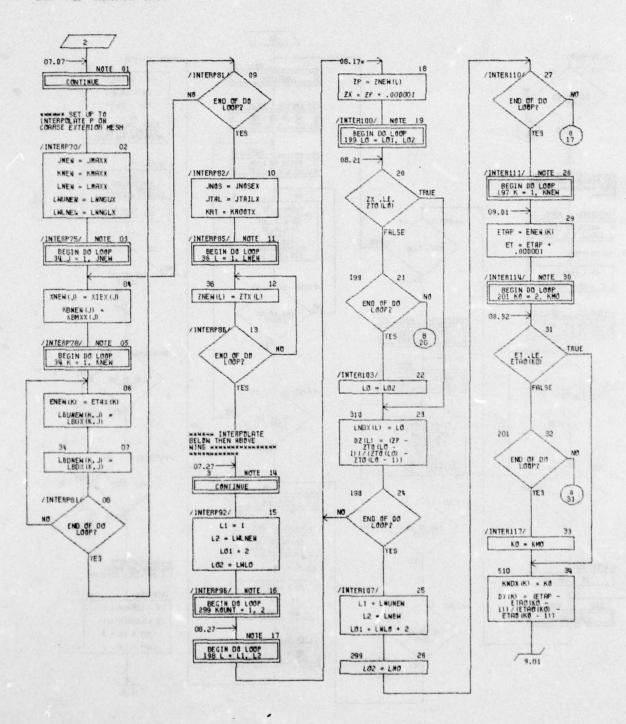


CHART TITLE - SUBROUTINE INTERP

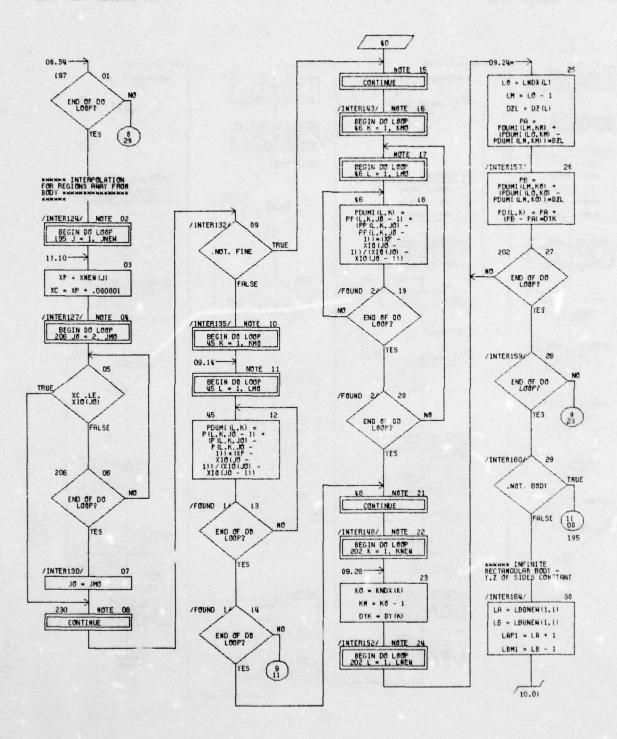


CHART TITLE - SUBROUTINE INTERP

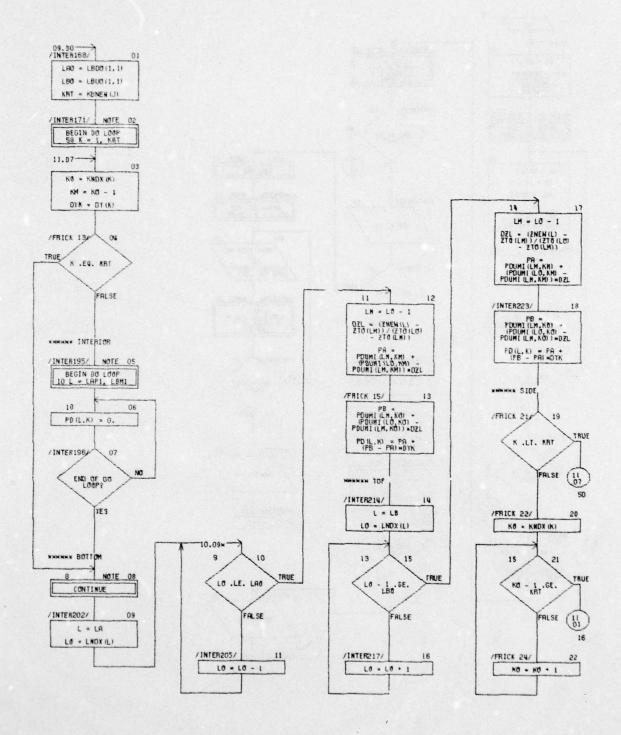
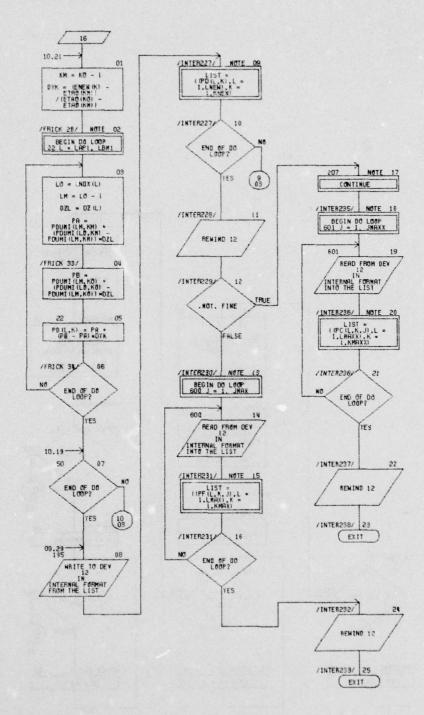


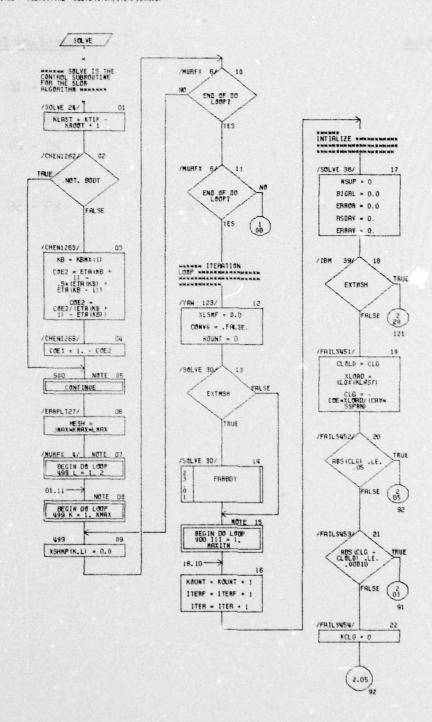
CHART TITLE - SUBBOUTINE INTERP



## FLOW CHART - 8

Subroutine	Autoflow Page
SOLVE	1 - 16
STORE	20
FARBDY	23 - 24
PFINT	27
SOLVEX	29 - 39

CHART TITLE - SUBMOUTINE SOLVETITER, ITERF, CONVG)



## CHART TITLE - SUBROUTINE SOLVE(ITER, ITERF, CONVC)

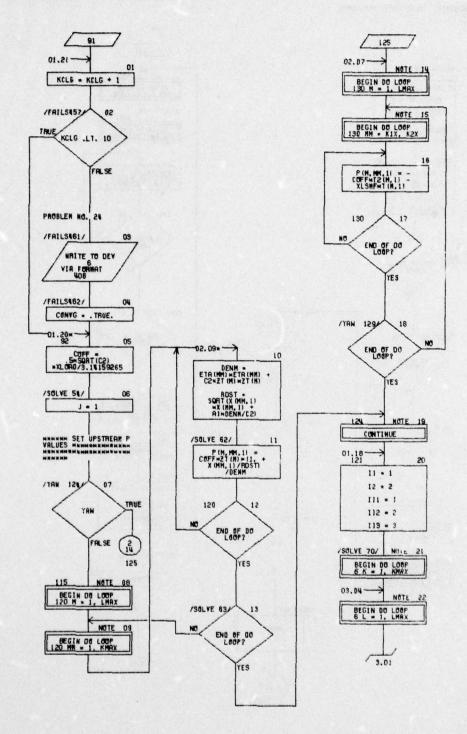
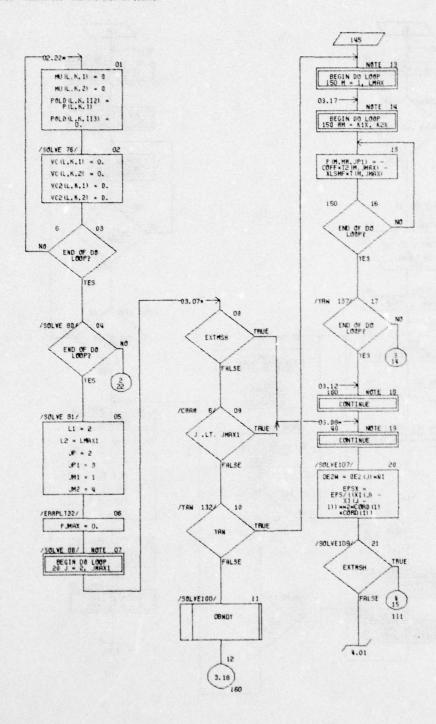


CHART TITLE - SUBROUTINE SOLVE (ITER, ITERF, CONVC)



## CHART TITLE - SUBROUTINE SOLVE (ITER, ITERF, CONVC)

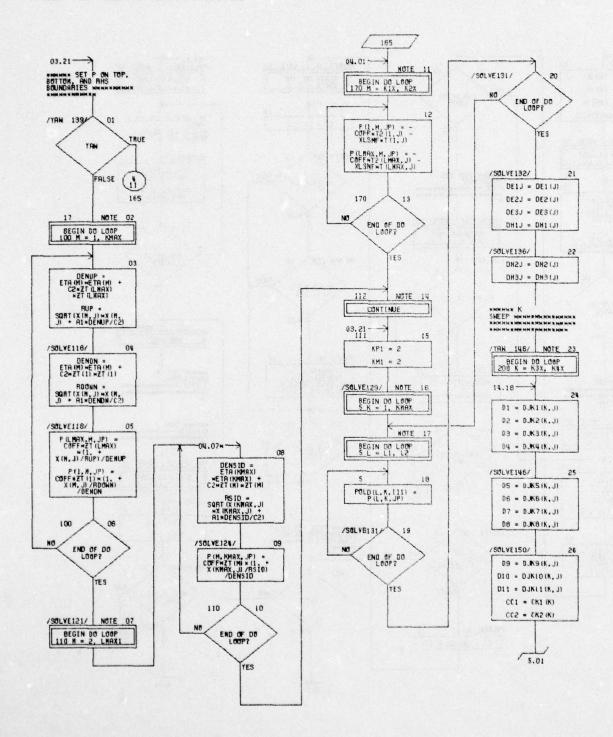
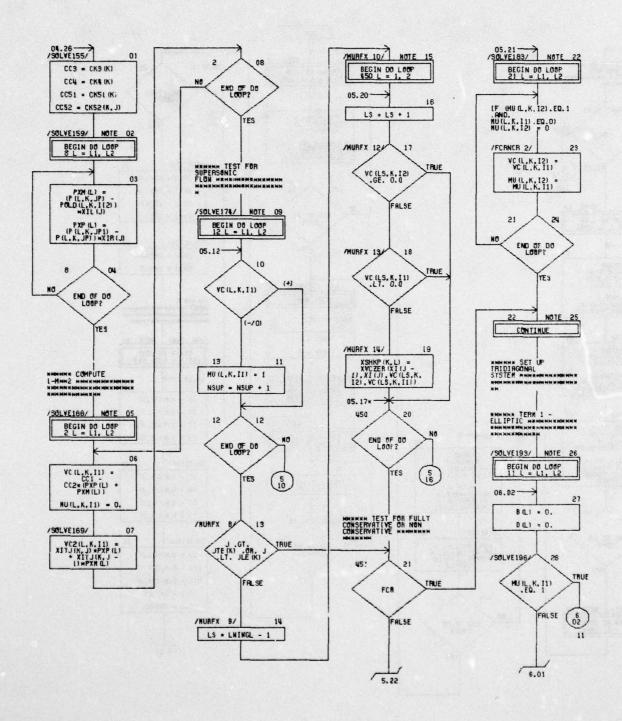
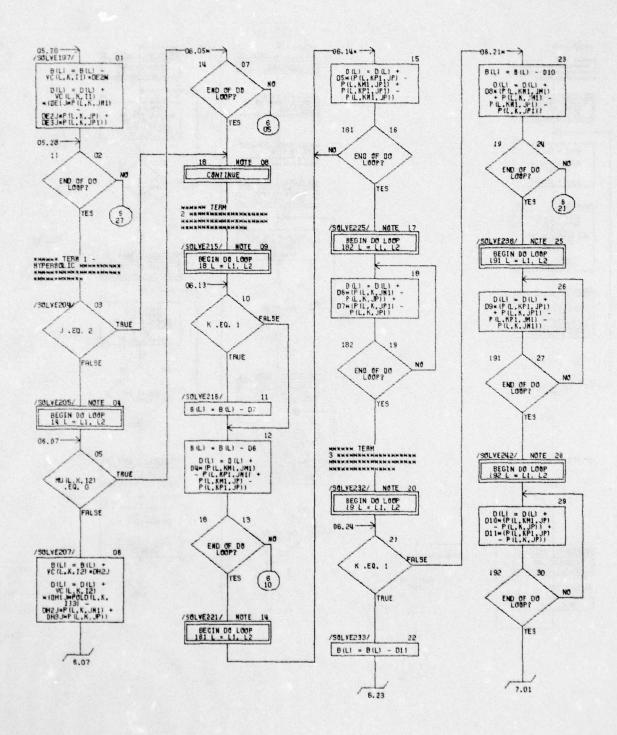


CHART TITLE - SUBROUTINE SOLVE (ITER, ITERF, CONVG)



CHRRT TITLE - SUBBOUTINE SELVETITER, ITERF . CONVE



AD-A055 109 GRUMMAN AEROSPACE CORP BETHPAGE N Y AN AUTOMATED PROCEDURE FOR COMPUTING THE THREE-DIMENSIONAL TRANETC(U) FEB 78 W H MASON, D MACKENZIE, M STERN F33615-75-C-3073 UNCLASSIFIED  AFFDL-TR-77-122 NL													1	
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CHART TITLE - SUBROUTINE SOLVE (ITER, ITERF, CONVC)

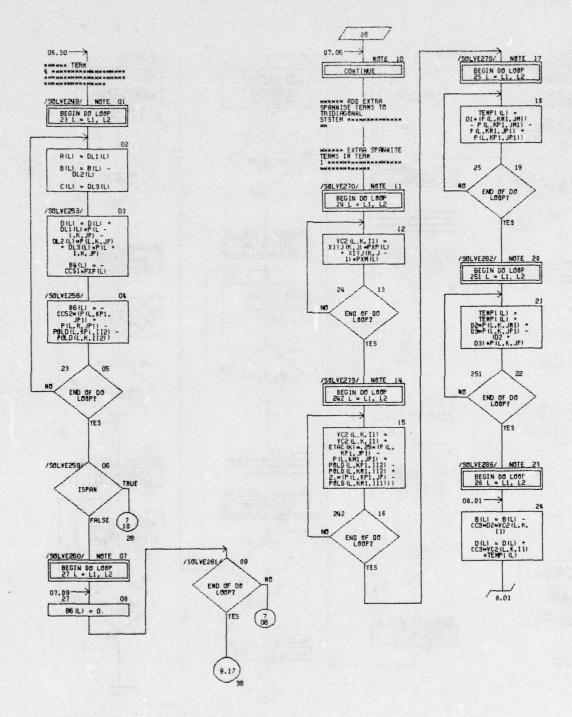


CHART TITLE - SUBROUTINE SOLVE (ITER, ITERF . CONVC)

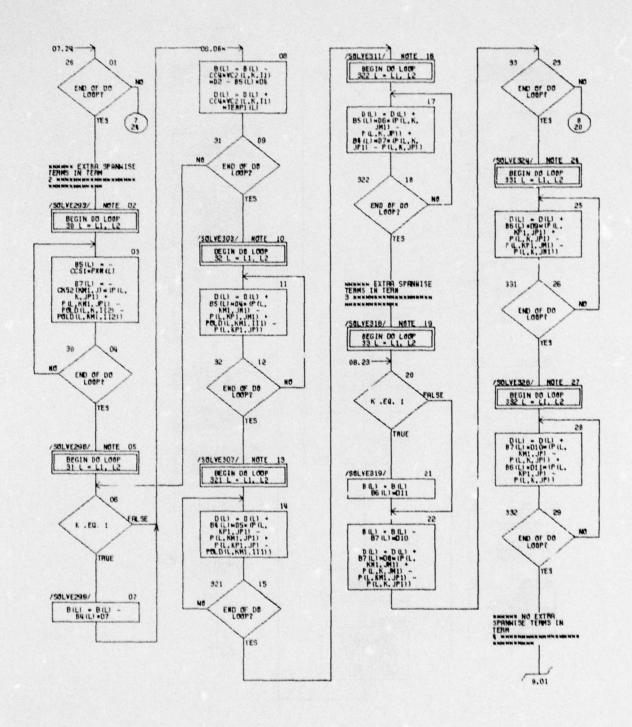
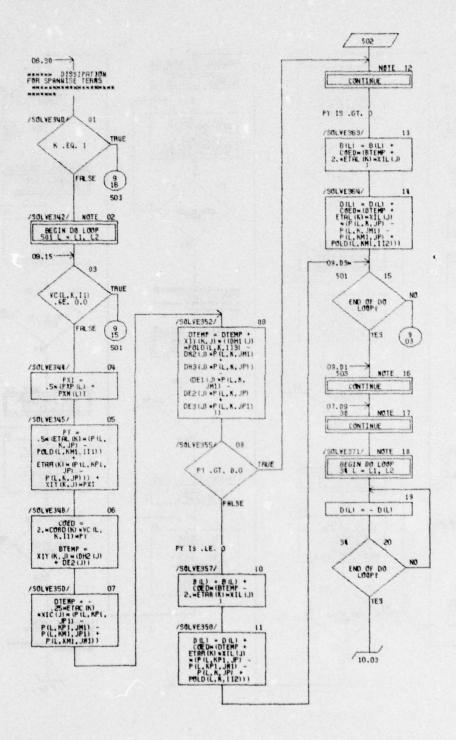


CHART TITLE - SUBROUTINE SELVE (ITER, ITERF. CONVG)



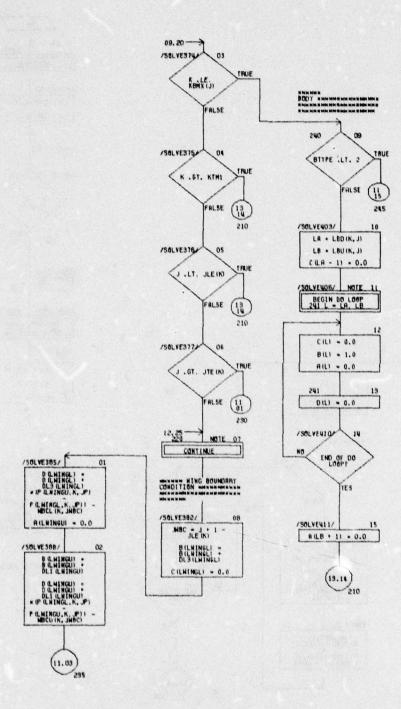
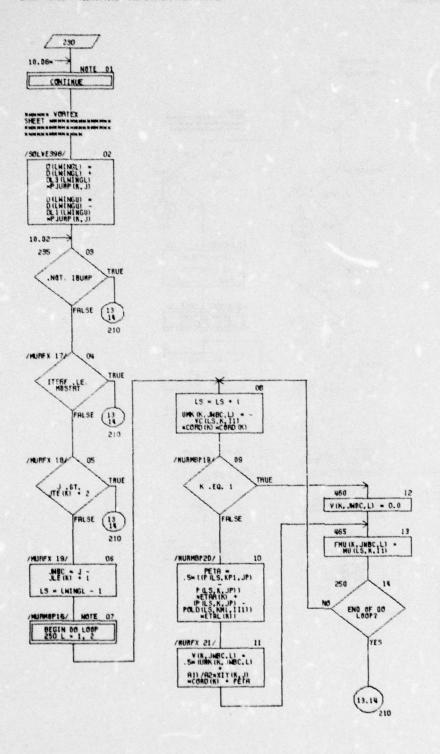


CHART TITLE - SUBMOUTINE SOLVETITER. ITERF. CONVC)



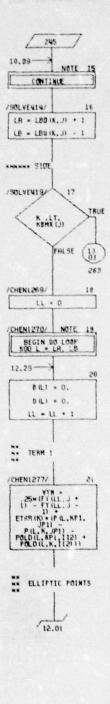


CHART TITLE - SUBROUTINE SALVETITER, ITERF, CONVG)

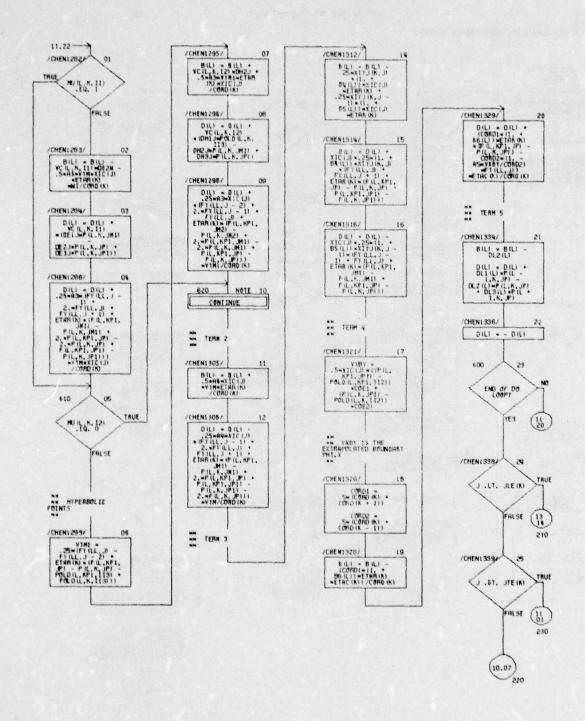


CHART TITLE - SUBMOUTINE SOLVETITER, LYERF, CONVC)

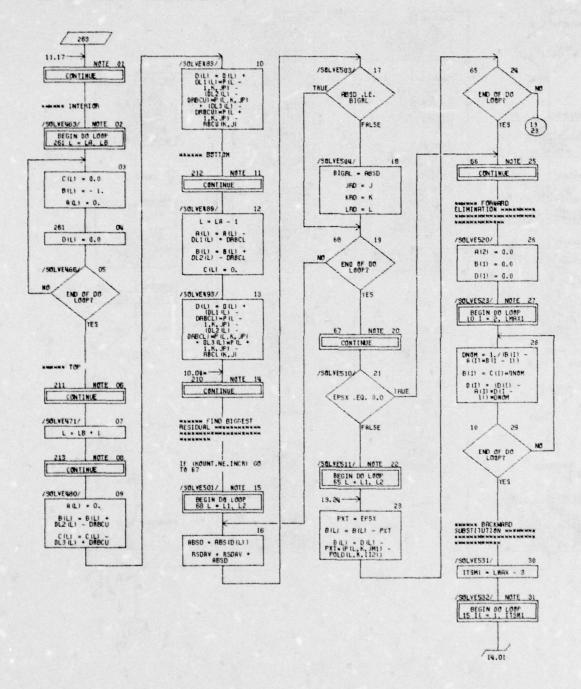


CHART TITLE - SUBMOUTINE SOLVE LITER, LITER , CONVG)

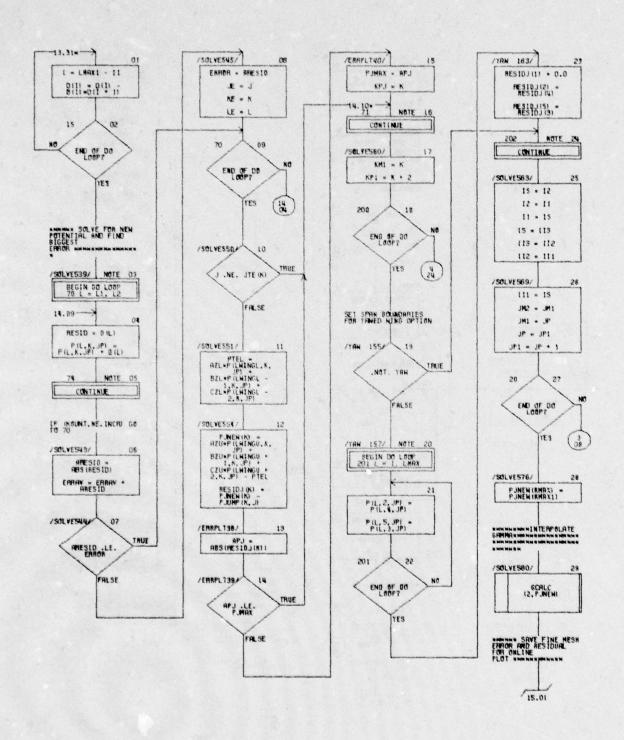


CHART TITLE - SUBMOUTINE SOLVE (ITER. ITERF. CONVG)

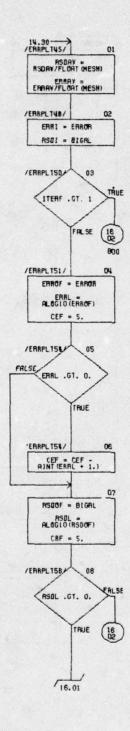


CHART TITLE - SUBMOUTINE SOLVE (TTER, TTERF, CONVC)

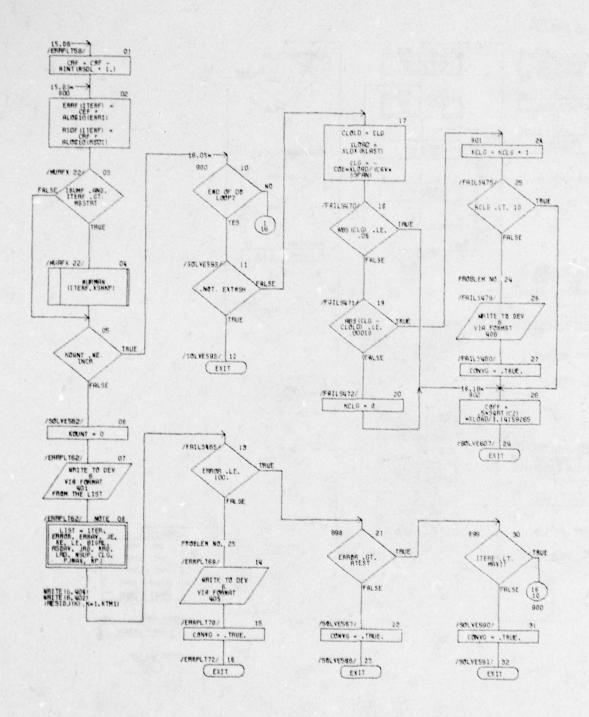


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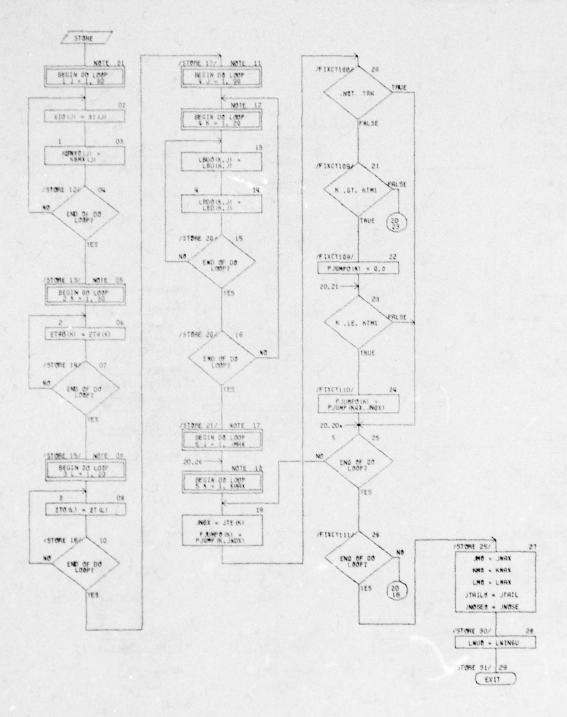


CHART TITLE - SLEROUTINE FRREDY

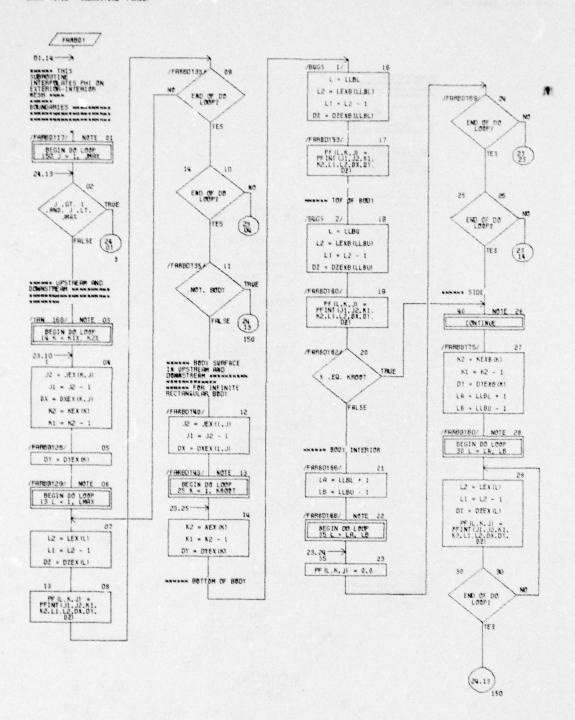


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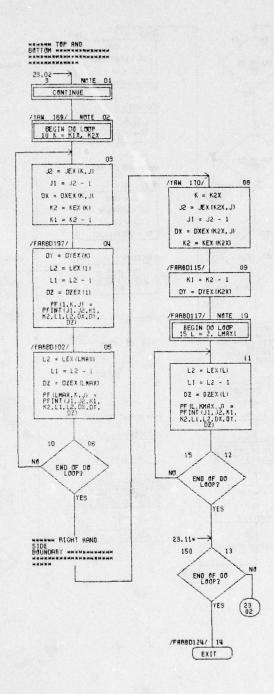


CHART TITLE - FUNCTION PFINT (J1. J2.K1.K2.L1.L2.DX.DY.DZ)

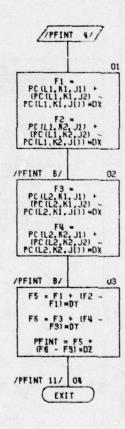


CHART TITLE - SUBROUTINE SELVEX HITER, ITERC)

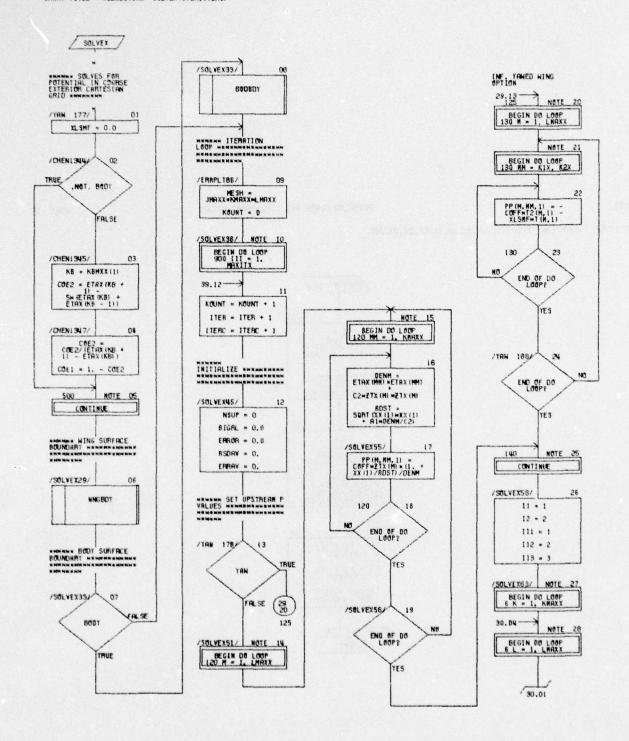


CHART TITLE - SUBROUTINE SOLVEX HITER. HERCH

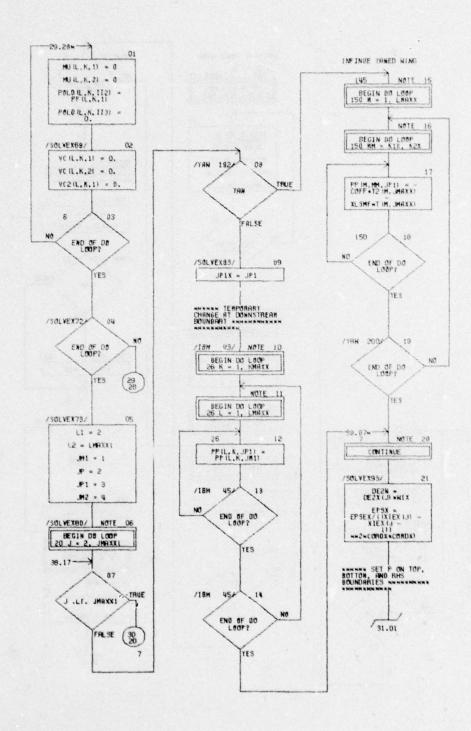


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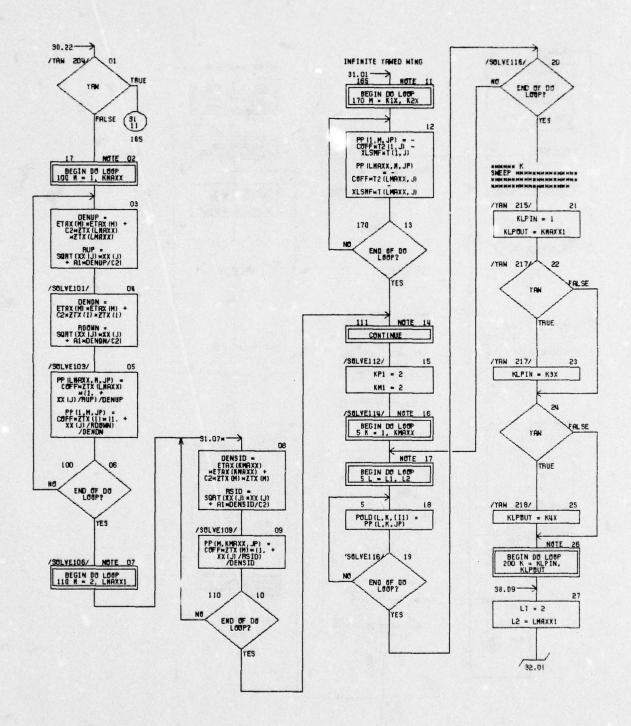
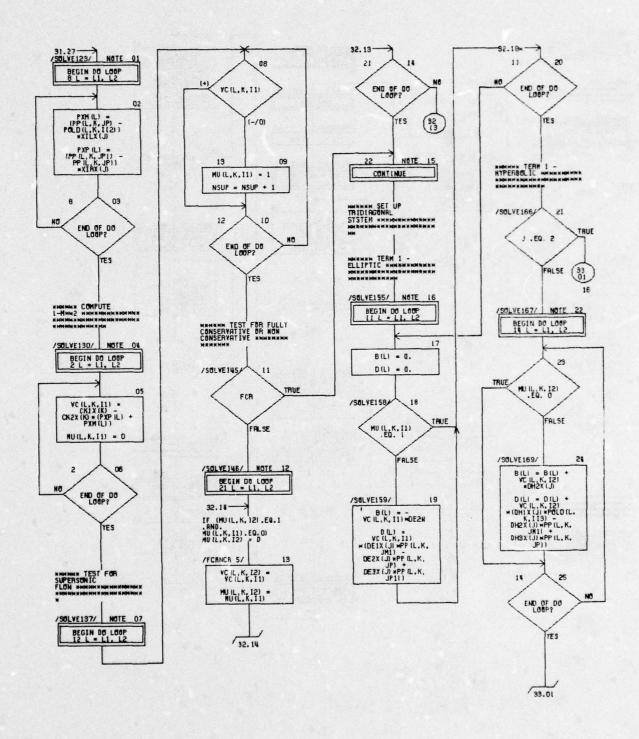


CHART TITLE - SUBROUTINE SELVEX ITER, ITERC)



CHRRT TITLE - SUBFOUTINE SOLVEX HITER, ITERO

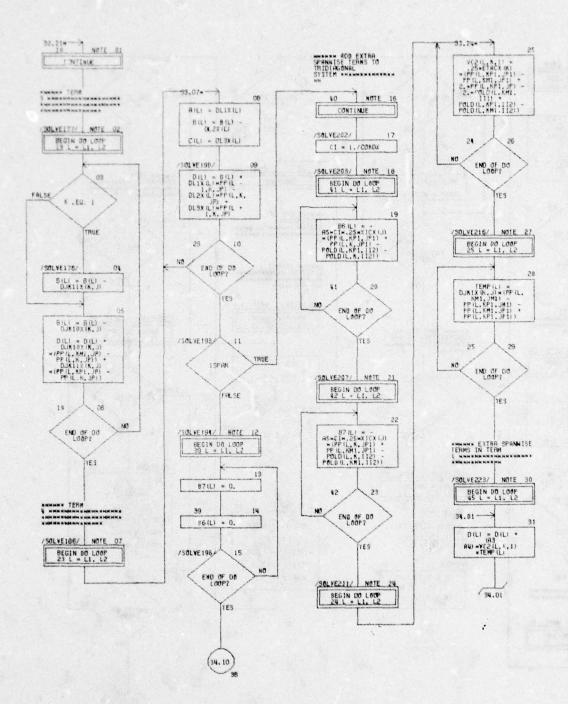


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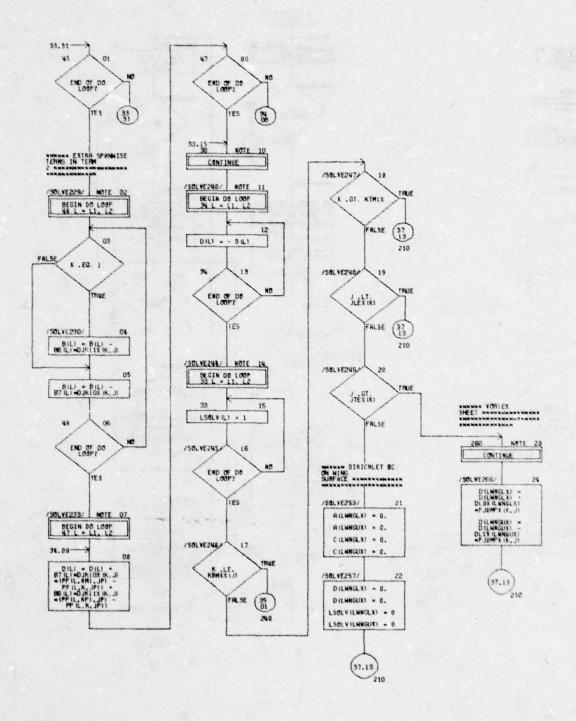


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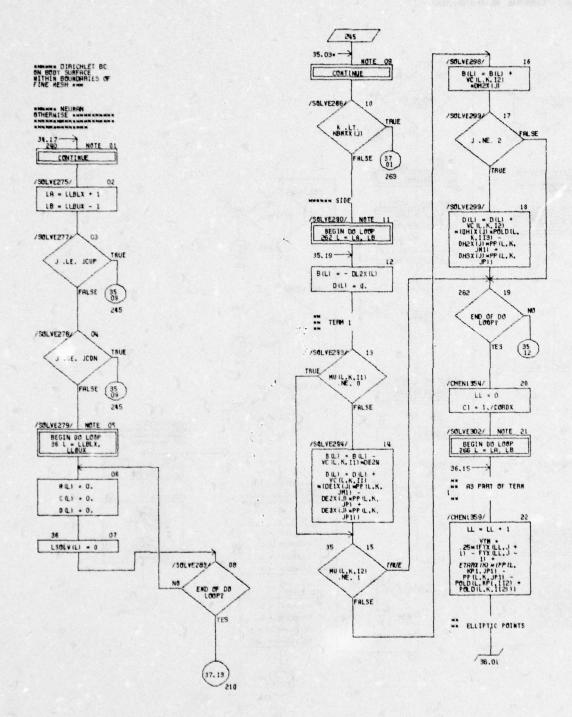


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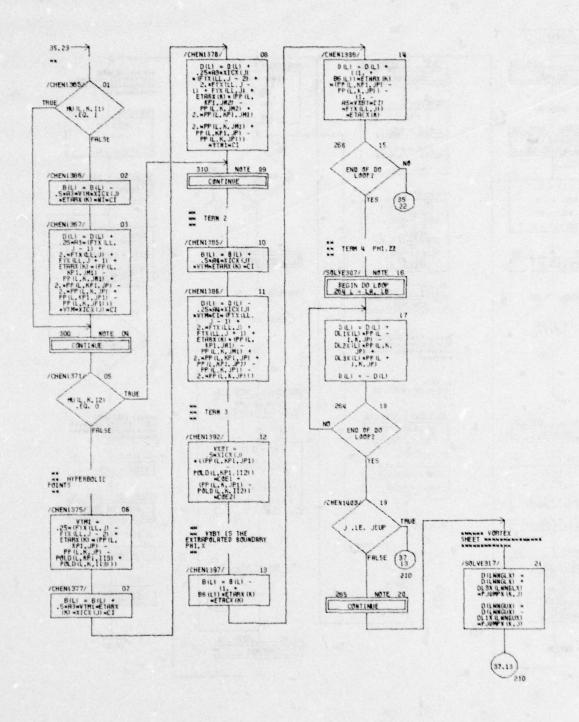


CHART TITLE - SUBROUTINE SOLVEX HITER. ITERC

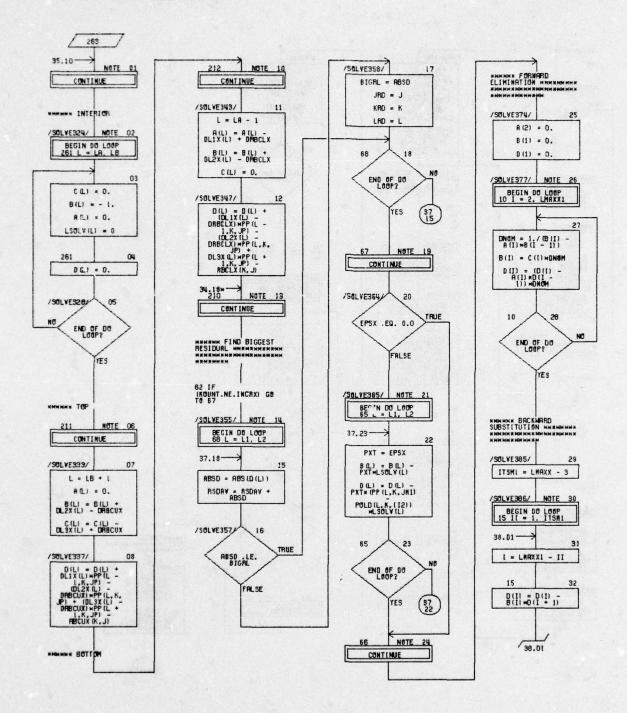
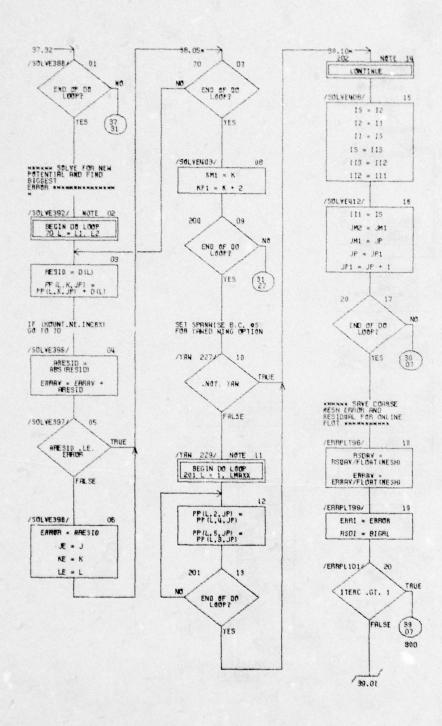
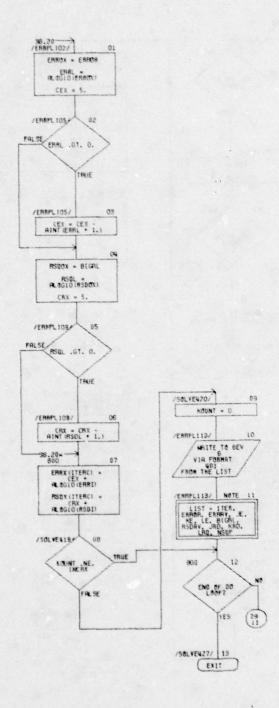


CHART TITLE - SUBROUTINE SELVEX HITER, HERCH



CHRRT TITLE - SUBROUTINE SELVEX (TER. ITERC)



## FLOW CHART - 9

Subroutine

Autoflow Page

WNGBDY

14 - 15

CHRRT TITLE - SUBROUTINE HNGBOY

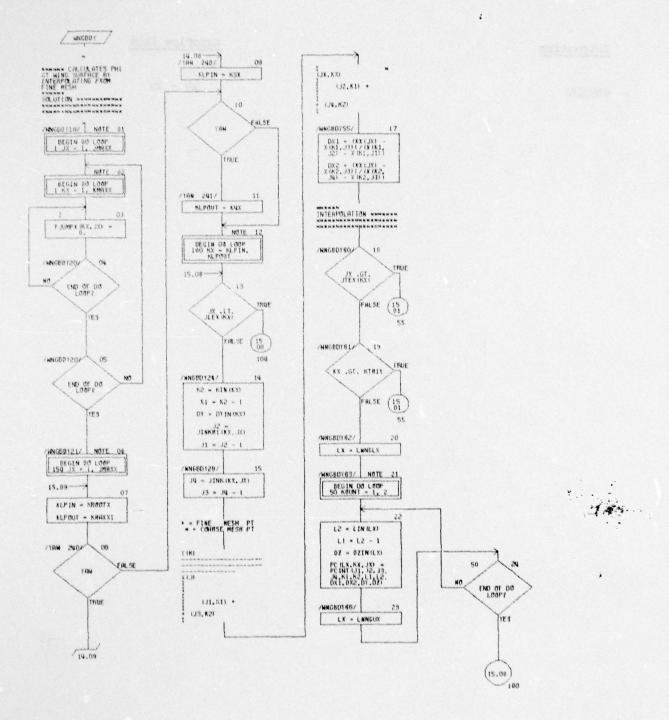
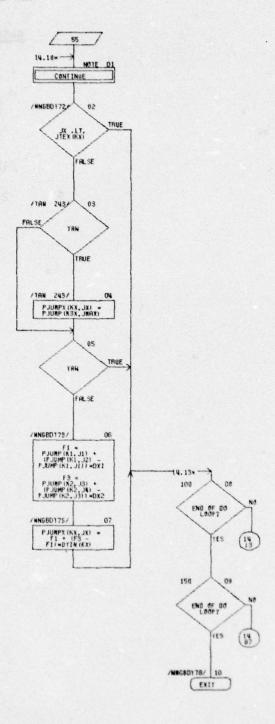


CHART TITLE - SUBROUTINE MAGROY



## FLOW CHART - 10

Subroutine	Autoflow Page
PCINT	1
BODBDY	3 - 4
GCAIC	7 - 11
DBNDY	14 - 17
DBNDYX	20 - 23

CHART TITLE - FUNCTION PCINT(J1, J2, J3, J4, K1, K2, L1, L2, DX1, DX2, JY, DZ)

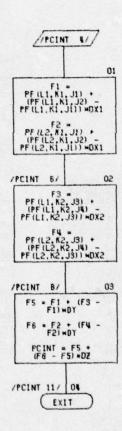
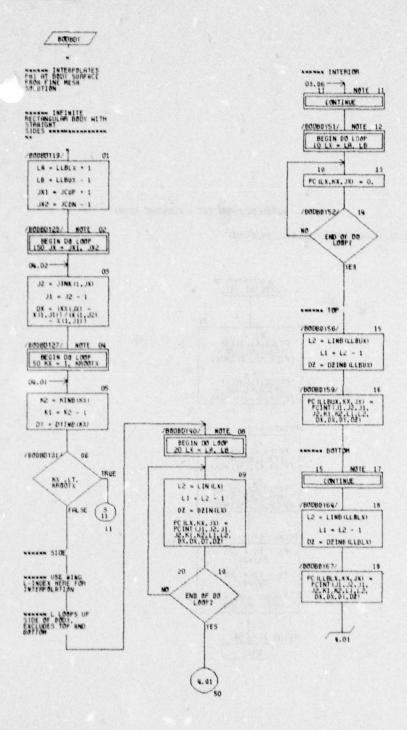


CHART TITLE - SUBBOUTINE BODBDY



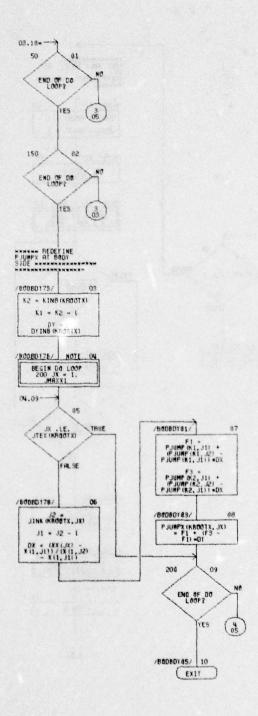


CHART TITLE - SLENGUTINE GEALC (KODE, PUNEN)

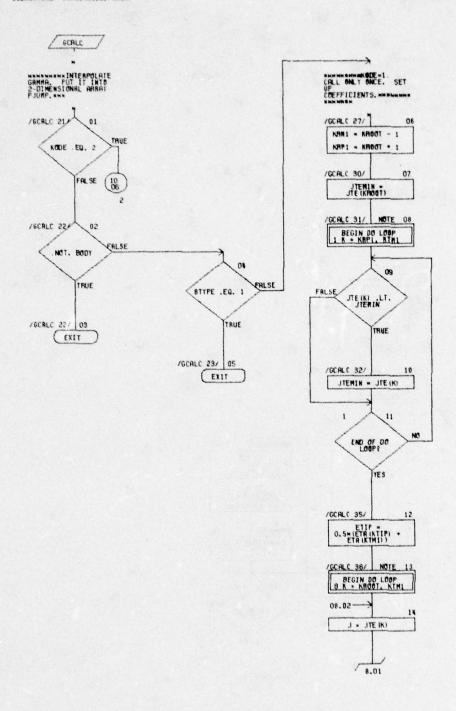


CHART TITLE - SUBMOUTINE GCALC (NODE, PUNEN)

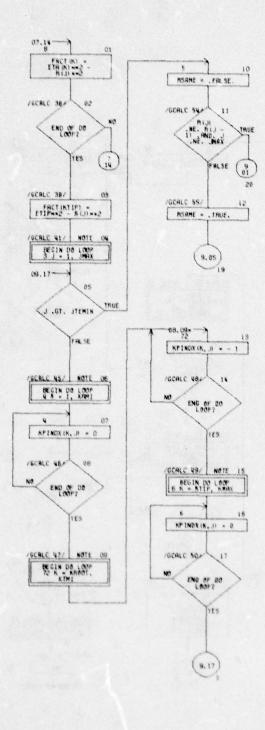
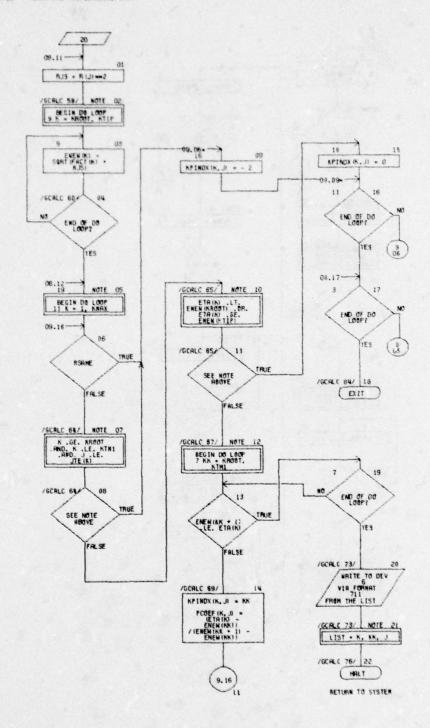


CHART TITLE - SUBMOUTINE GCALCINODE, PUNEM)



CHARF TITLE - SUBROUTINE GCALC (NODE, PUNEN)

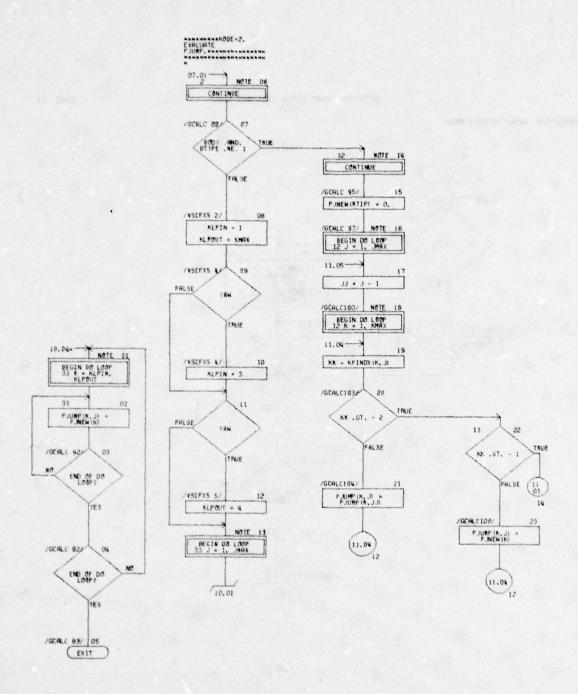


CHART TITLE - SUBROUTINE GCALC (NODE. PJNEN)

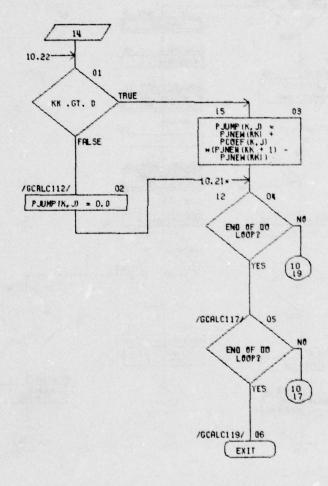


CHART TITLE - SUBMOUTINE DENGY

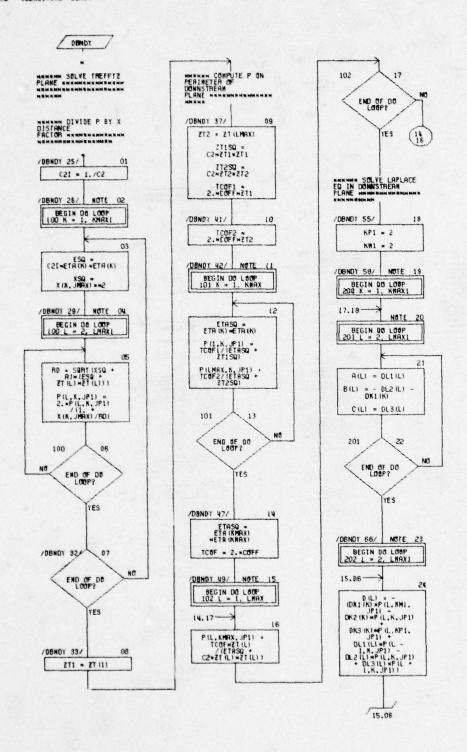


CHART TITLE - SUBROUTINE DBNDY

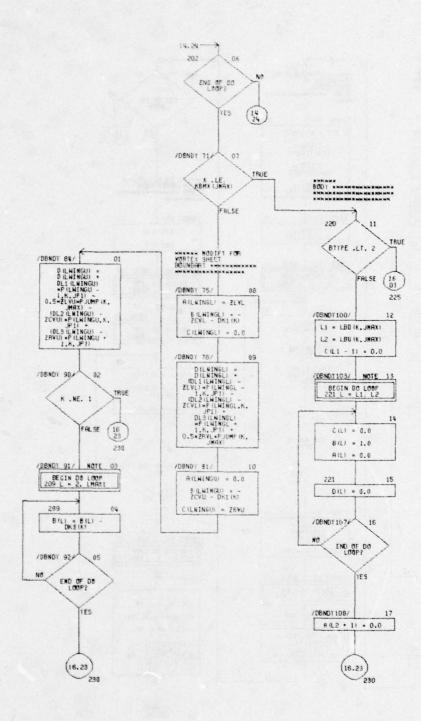


CHART TITLE - SUBBOUTINE DBNOY

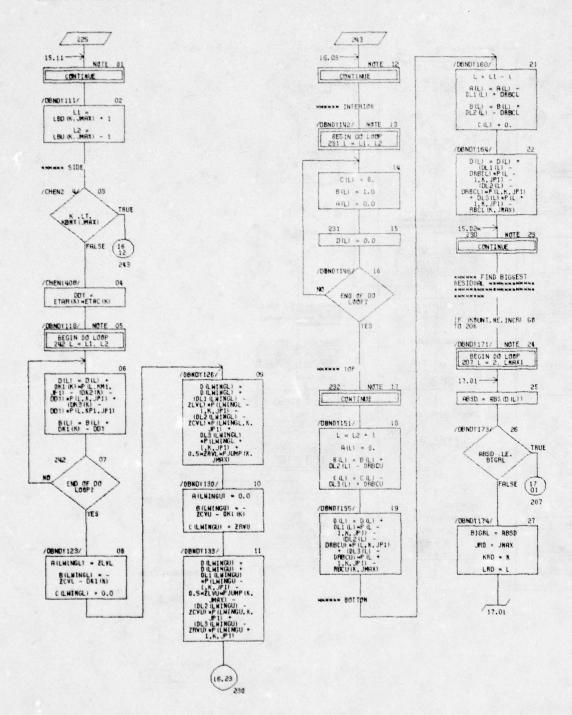


CHART TITLE - SUBROUTINE DBNDY

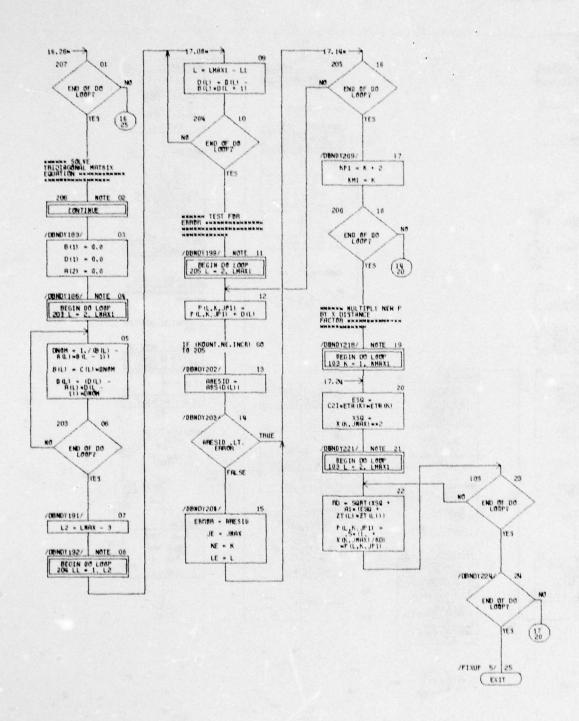


CHART TITLE - SUBROUTINE DBNBYX

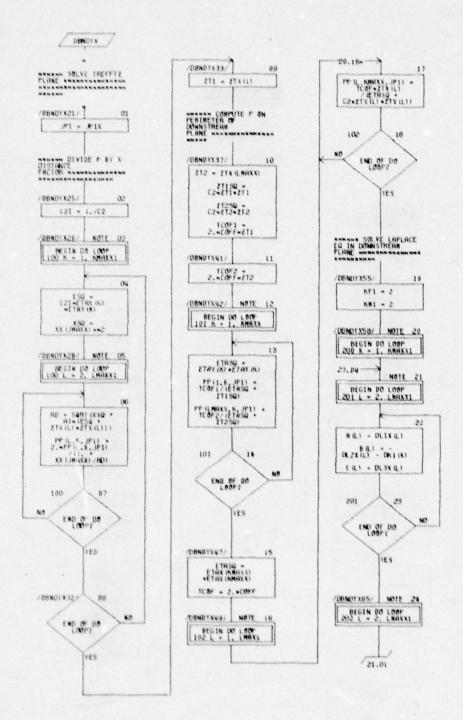


CHART TITLE - SUBROUTINE DBNDYX

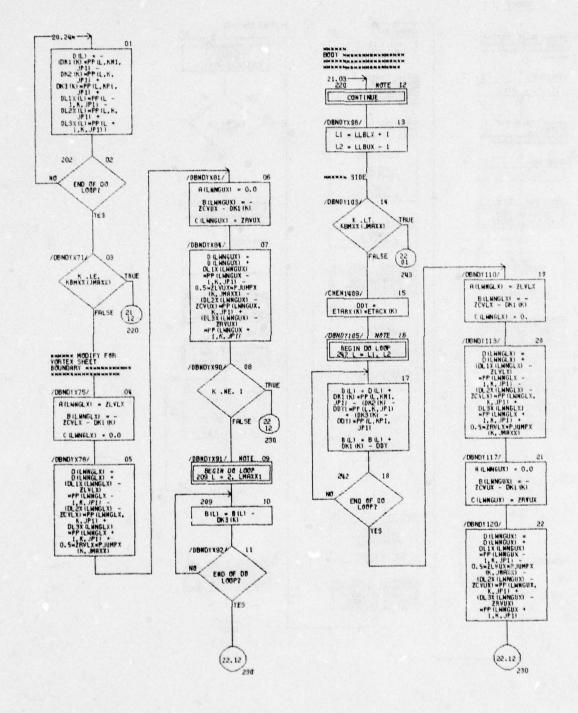


CHART TITLE - SUBMOUTINE DBNDYX

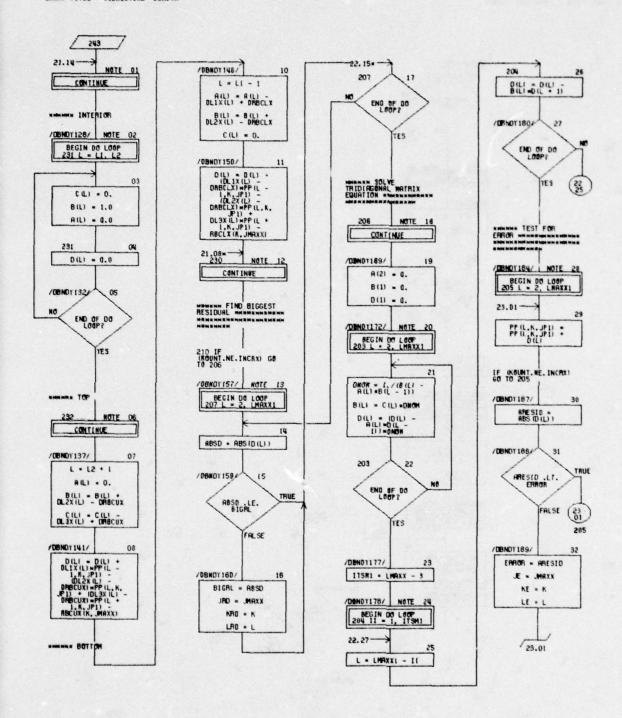
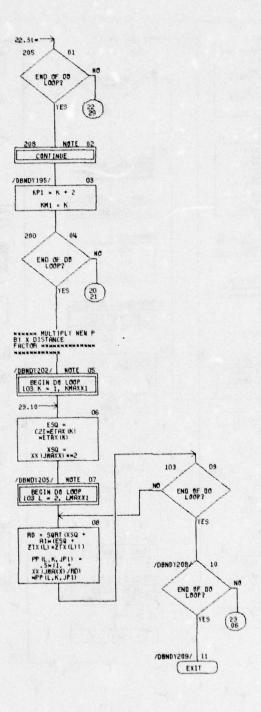


CHART TITLE - SUBMOUTINE DANDYX



## FLOW CHART - 11

Subroutine

Autoflow Page

PHIBOD

18 - 21

CHART TITLE - SUBROUTINE PHIBOD IJ)

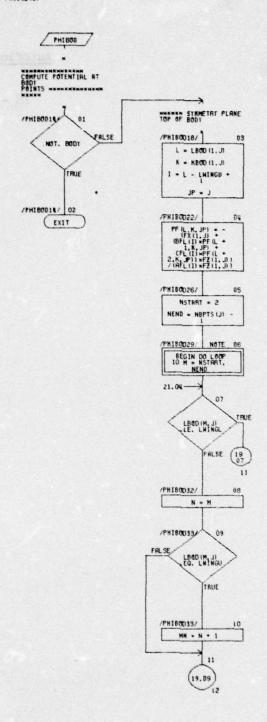


CHART TITLE - SUBROUTINE PHIROD (J)

F. 3

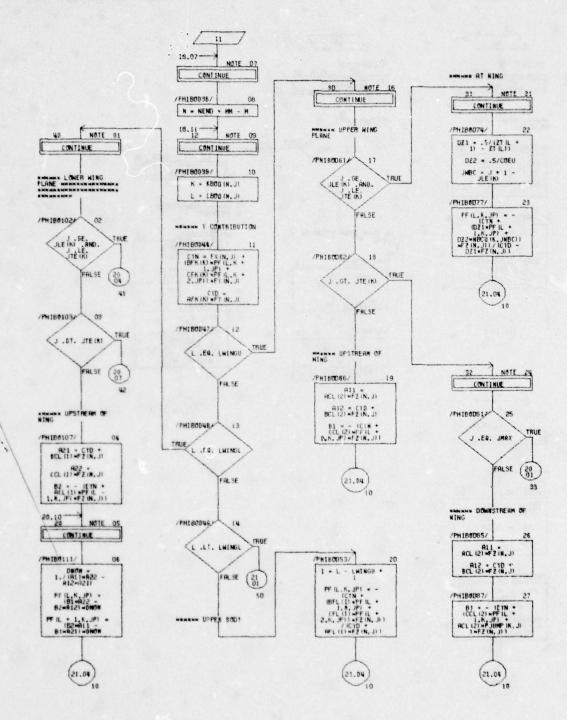


CHART TITLE - SUBMOUTINE PHIBOD (J)

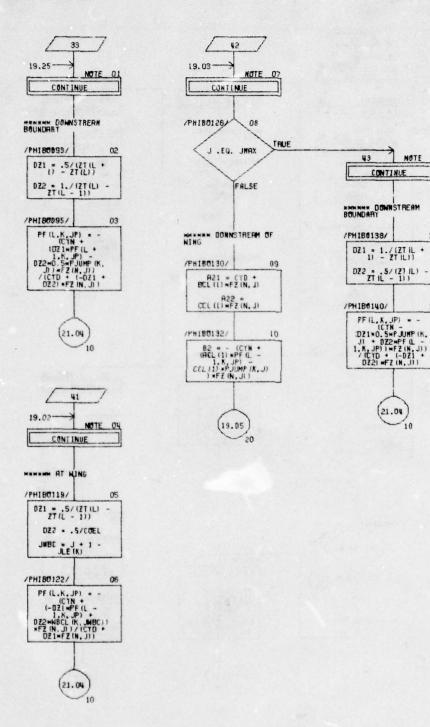
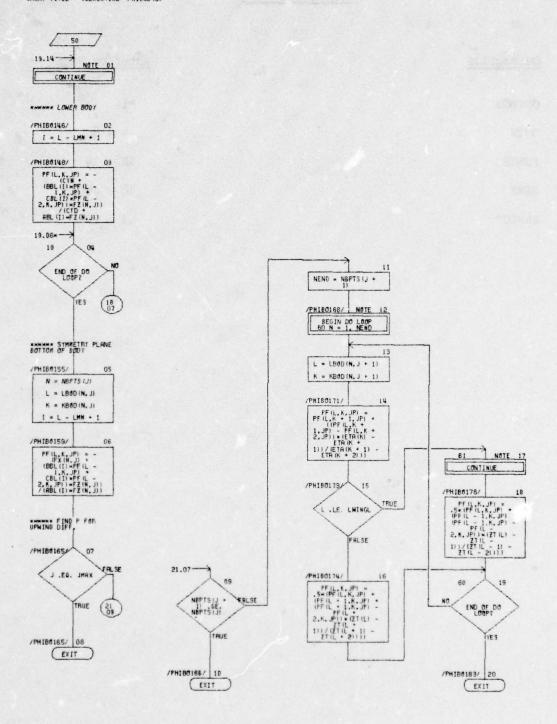


CHART TITLE - SUBHOUTINE PHIROD (J)



## FLOW CHART - 12

Subroutine	Autoflow Page
OUTBOD	1
OUTP	4 - 8
FORCE	12 - 14
SIMP	18 - 19
ERPLOT	21 - 22

CHART TITLE - SUBBOUTINE OUTSOD

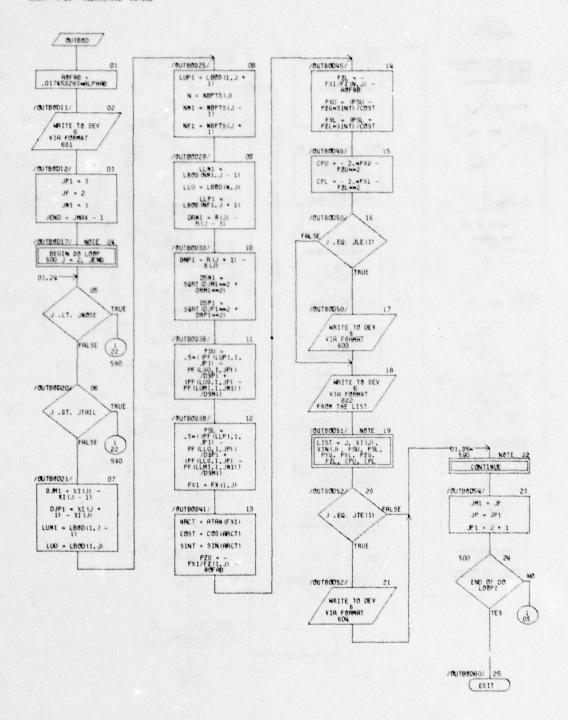


CHART TITLE - SUBMOUTINE OUTP

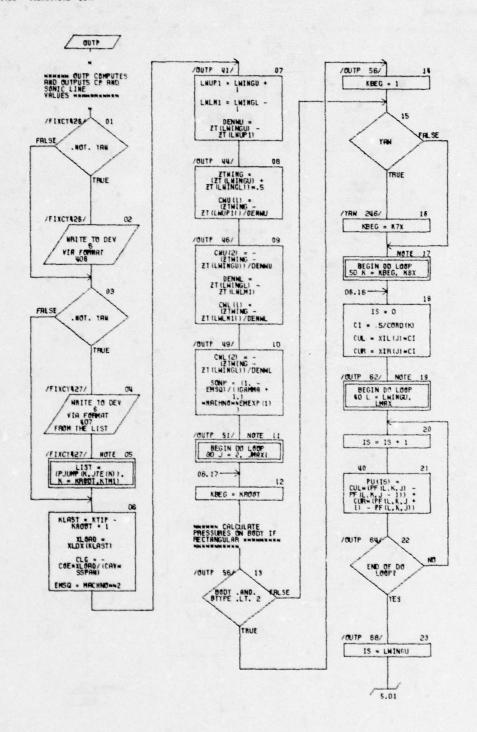


CHART TITLE - SLEROUTINE OUTP

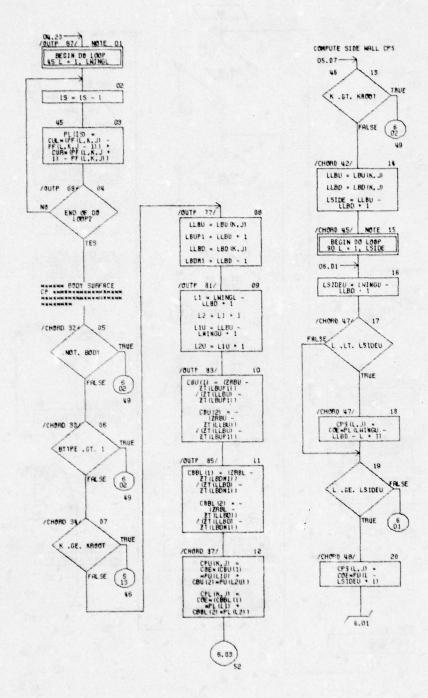


CHART TITLE - SUBROUTINE OUTP

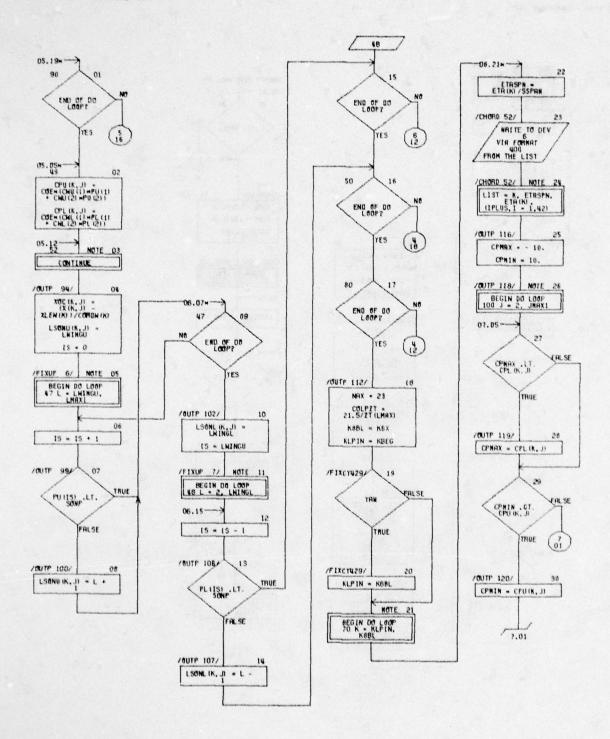


CHART TITLE - SUBROUTINE OUTP

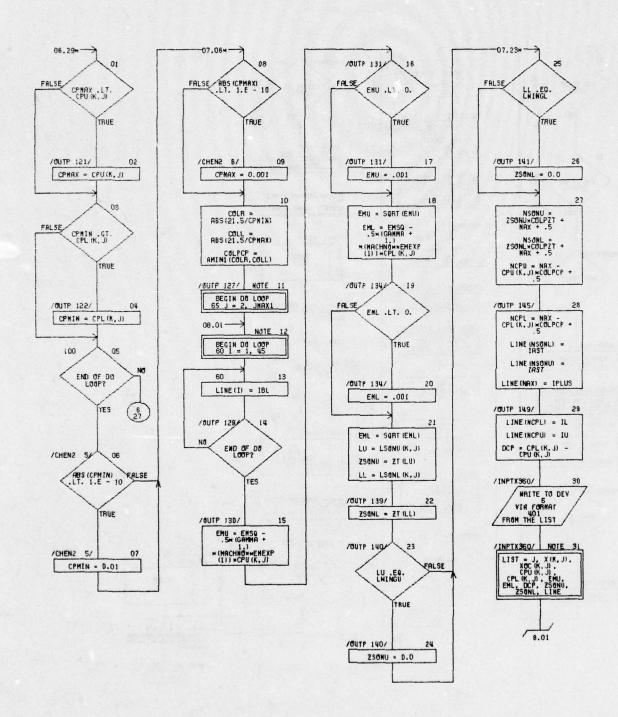


CHART TITLE - SUBROUTINE OUTP

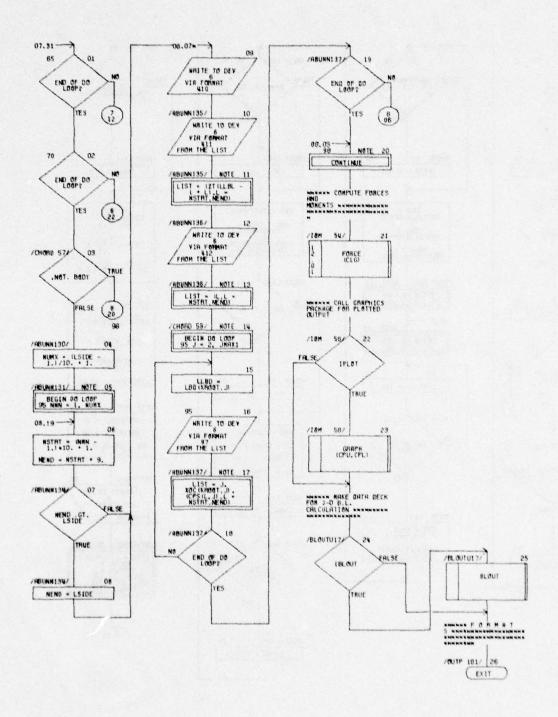
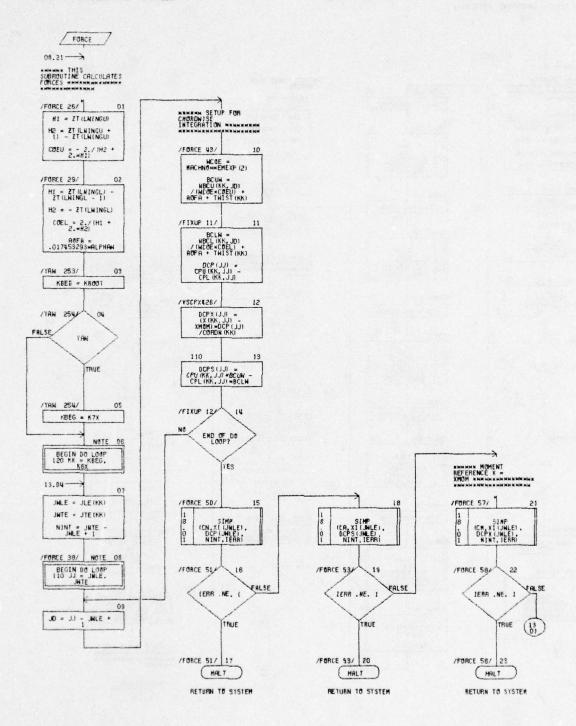


CHART TITLE - SUBROUTINE FORCE (CLG)



CHRRY TITLE - SUBMOUTINE FORCE (CLS)

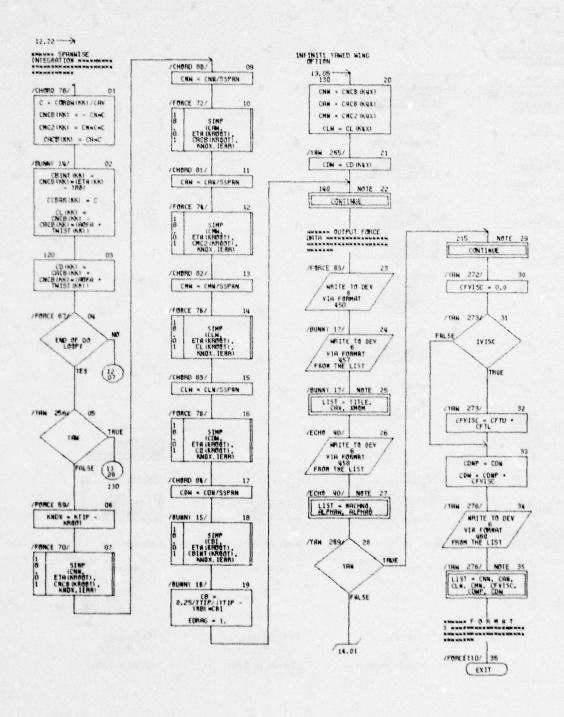


CHART TITLE - SUBROUTINE FORCE (CLG)

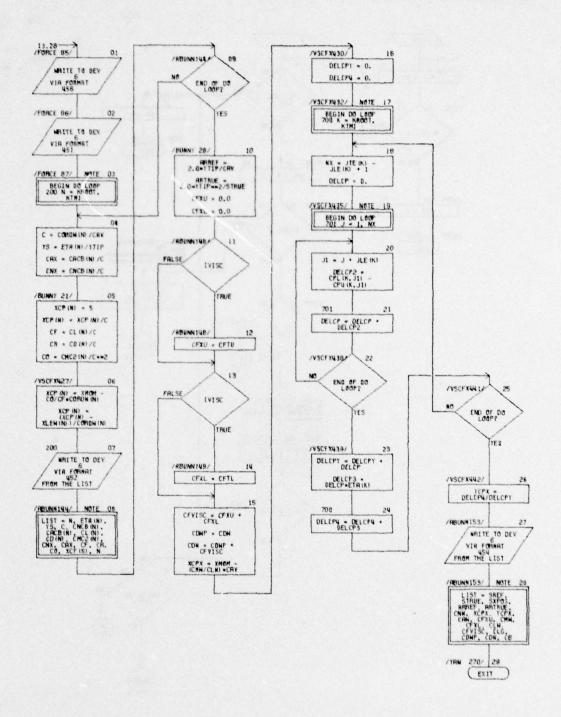


CHART TITLE - SUBROUTINE SIMP (R.X.Y.N. (ER)

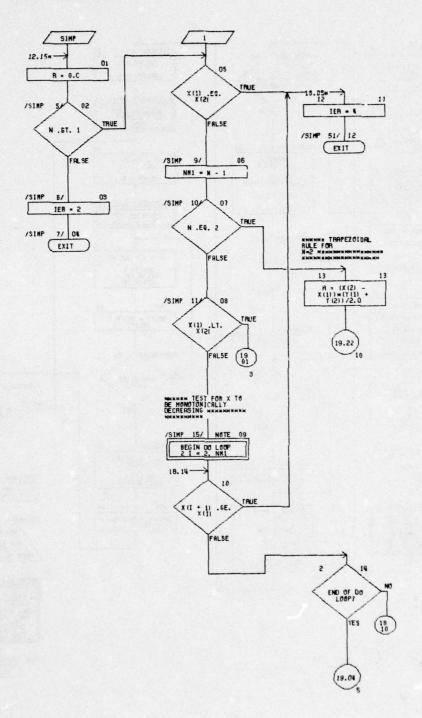
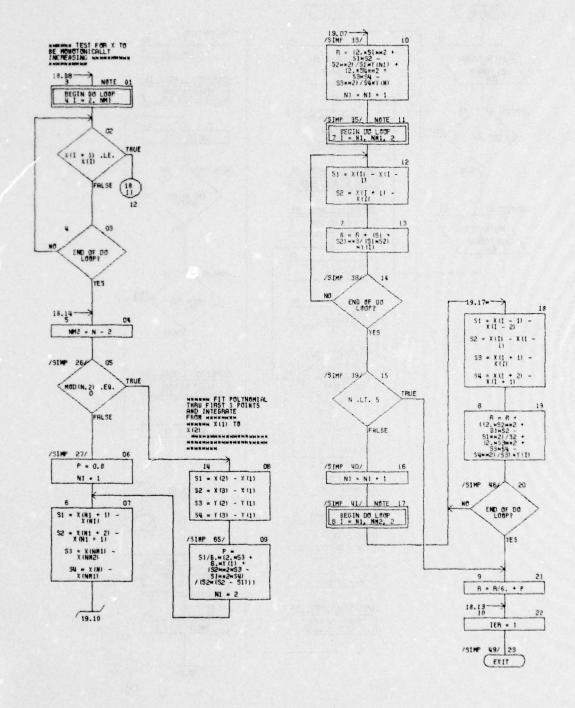


CHART TITLE - SUBMOSTINE SIMP (R.X.Y.N. (ER)



CHRAT TITLE - SUBROUTINE ERPLOTHIGRIO, KOUNT, CE, ERRO, ERR, CR, RSDO, RSD)

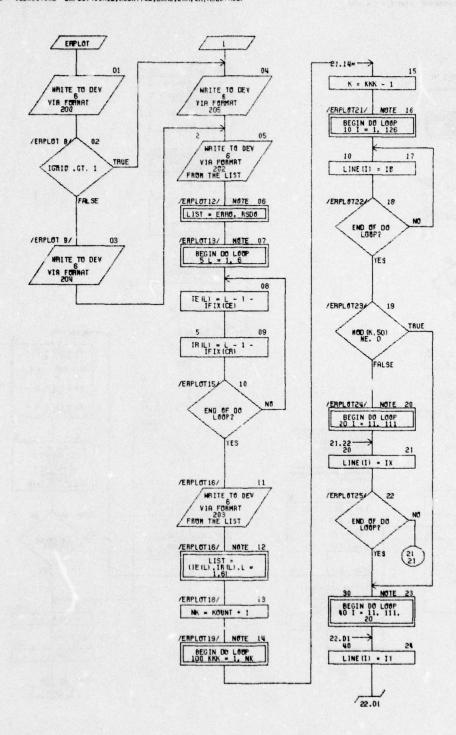
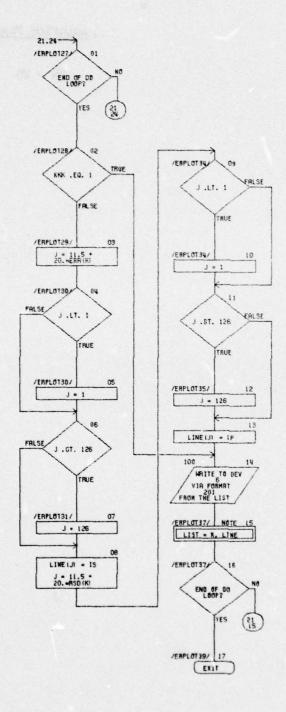


CHART TITLE - SUBROUTINE EMPLOTITIONIO. KOUNT, CE, ERRO, ERR. CR, RSDO, RSD)



## FLOW CHART - 13

Autoflow Page Subroutine 24 - 25

SCALE

CHART TITLE - SUBBOUTINE SCALE (N)

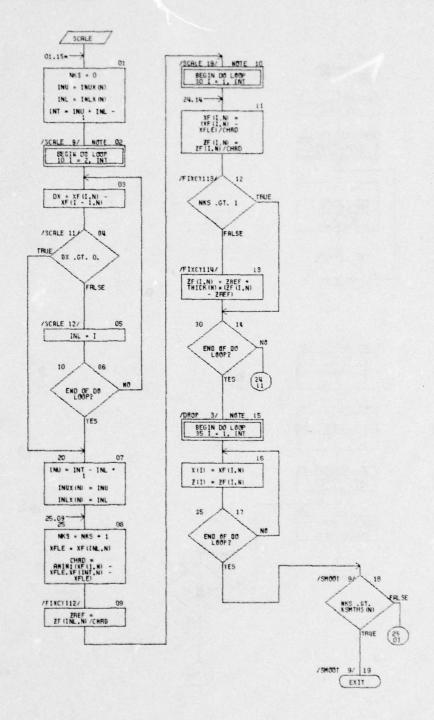
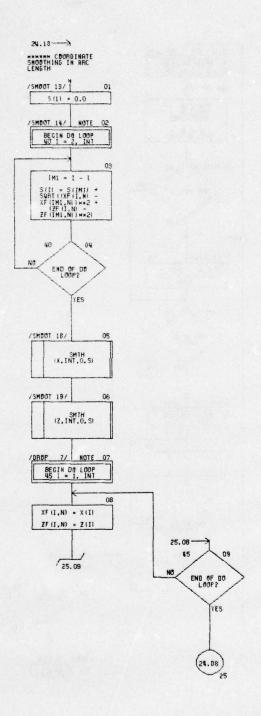


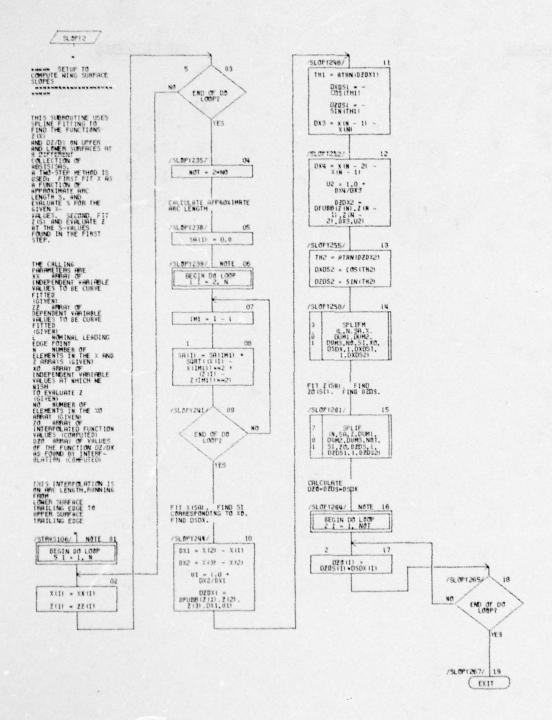
CHART TITLE - SUBROUTINE SCALE (N)



## FLOW CHART - 14

Subroutine	Autoflow Page
SIOPY2	1
SPLIFM	3 - 5
SPLIF	7 - 9
XMESH	11 - 15
XC2	17 - 20

CHART TITLE - SUBROUTINE SLOPTS (XX, ZZ.L.N. XO.NO. ZO. DZO)



## CHRRT TITLE - SUBROUTINE SPLIFMIL N. S. F. FP. FPP. FPP, NX. SI. FI. FIP. KM. YM. NN. VNI

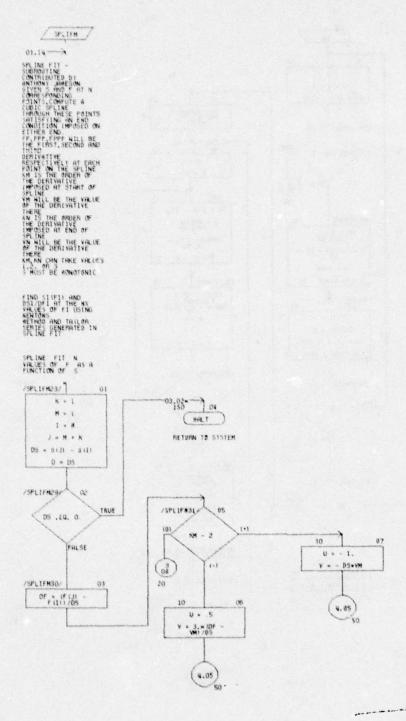


CHART TITLE - SUBROUTINE SPLIFMIL.N.S.F.FP.FPP,FPPP,NX.SI.FI.FIP,KM.YM.KN.VN)

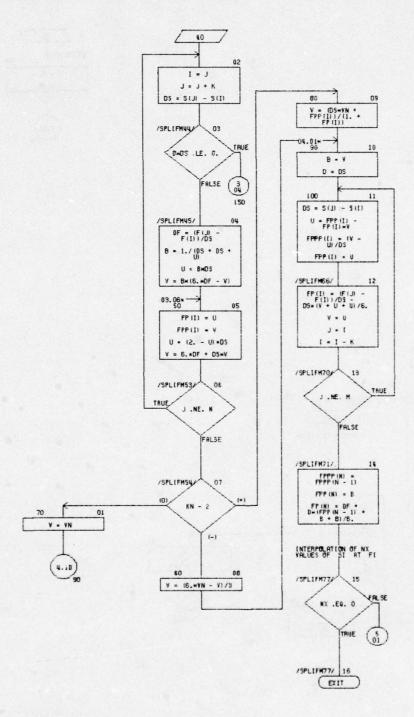


CHART TITLE - SUBROUTINE SPLIFMIL.N.S.F.FP.FPP.FPPP.NX,SI,FI,FIP.KM.VM,KN,VN)

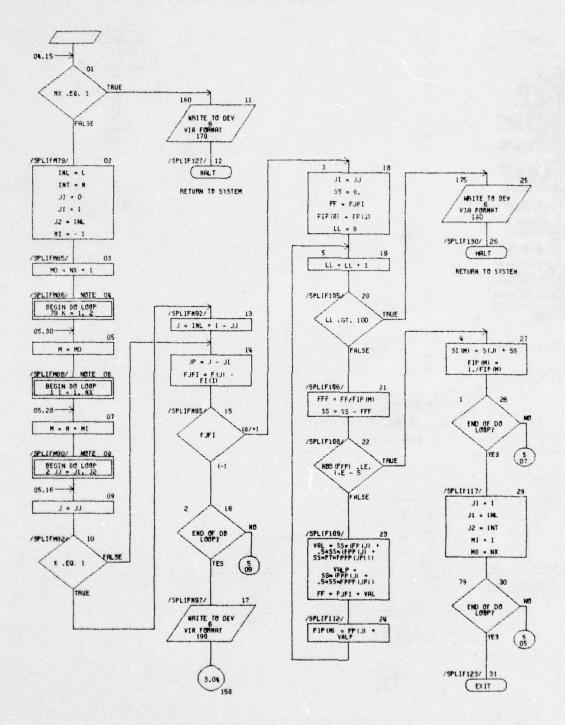
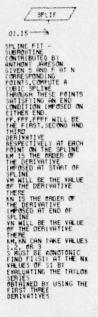
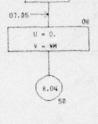


CHART TITLE - SUBROUTINE SPLIF (N.S.F.FP.FPP,FPPP,NX.St.FI.FIP.KM.VM.KN.VN)





SPLINE FIT N VALUES OF F AS A FUNCTION OF S

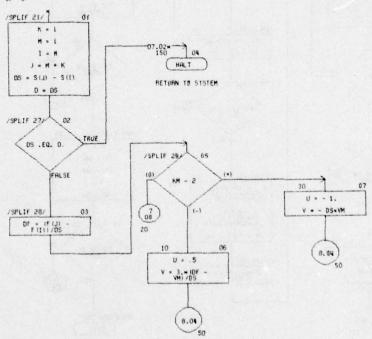


CHART TITLE - SUBROUTINE SPLIF (N. S.F. FP. FPP. NX. SI. FI. FIP. KM. VN. KN. VN)

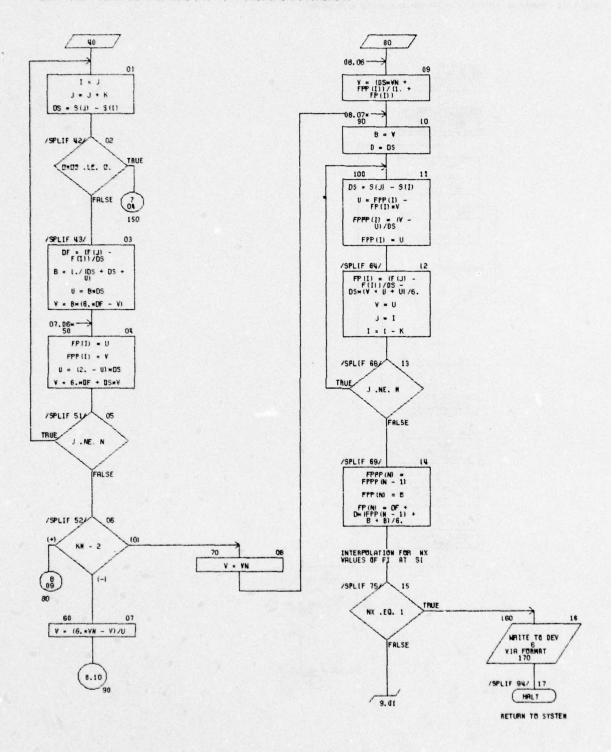


CHART TITLE - SUBBOUTINE SPLIF (N.S.F.FP.FPP, FPPP, NX, SI.FI.FIP, KM. VN. KN. VN)

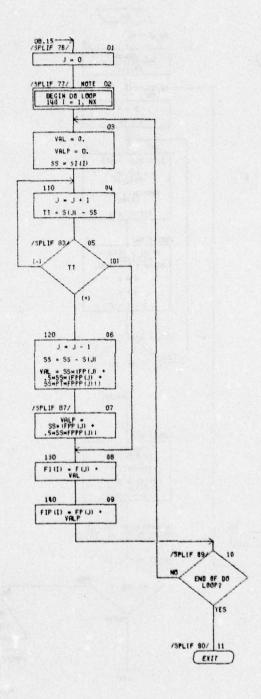


CHART TITLE - SUBMOUTINE XMESH (X, DXLE, DXTE, DXMAX, NI, NF, NB, XDIST, XLE, LOUTI, LOUTE

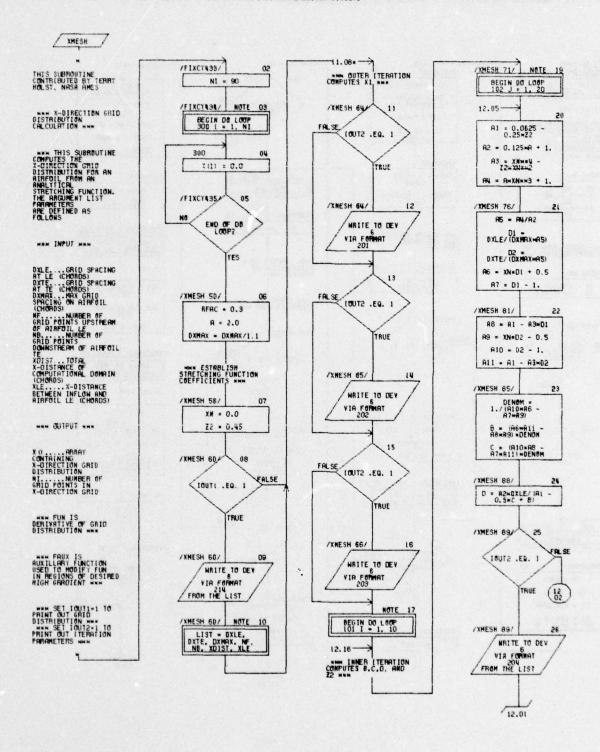


CHART TITLE - SUBAGUTINE XMESH (X, DXLE, DXTE, DXMAX, N1.NF, NB, XDIST, XLE, 10011, 10012

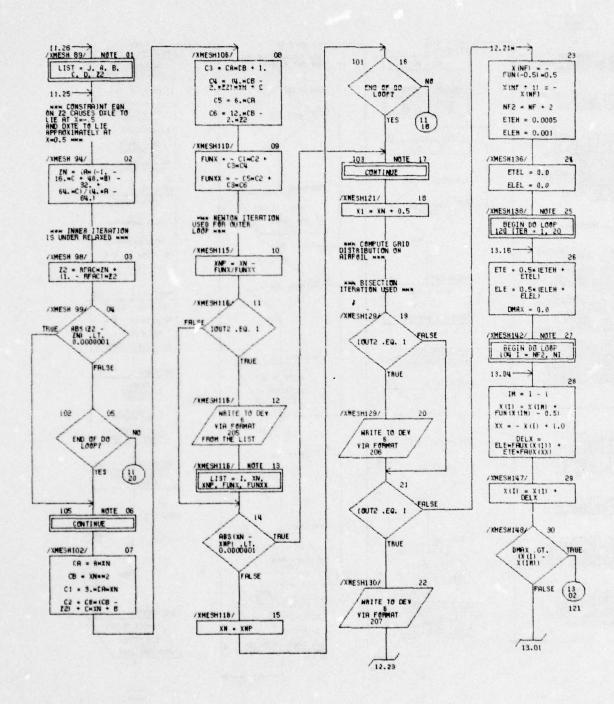


CHART TITLE - SUBROUTINE XMESHIX. DXLE, DXTE, DXMAX, NI. NF, NB. XDIST, XLE, LOUTI, LOUTE

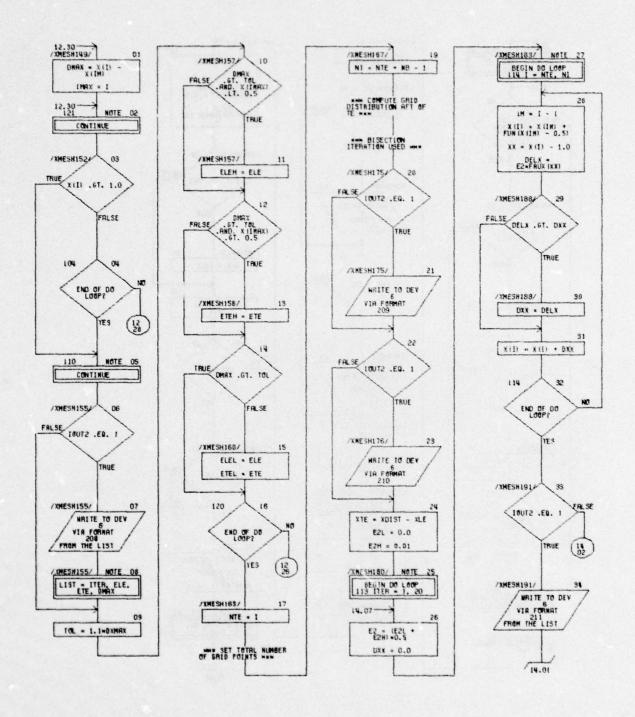
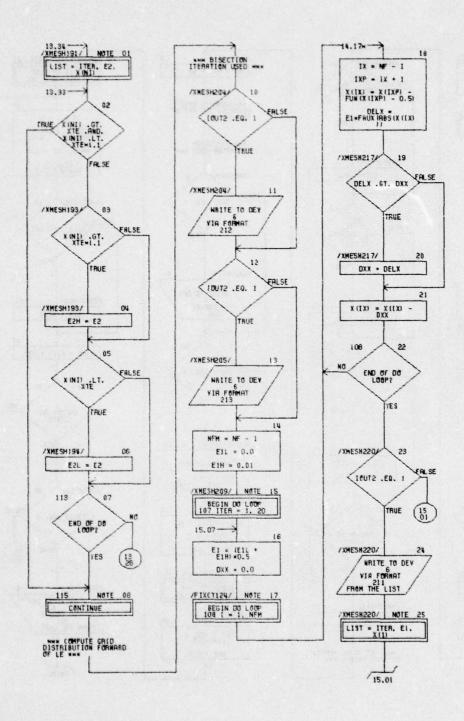


CHART TITLE - SUBROUTINE XMESH (X, DXLE, DXTE, DXMAX, NI, NF, NB, XDIST, XLE, 10011, 10012



CHRRT TITLE - SUBROUTINE XMESH (X, DXLE, DXTE, DXMAX, NI, NF. NB, XDIST, XLE, TOUT1, TOUT2

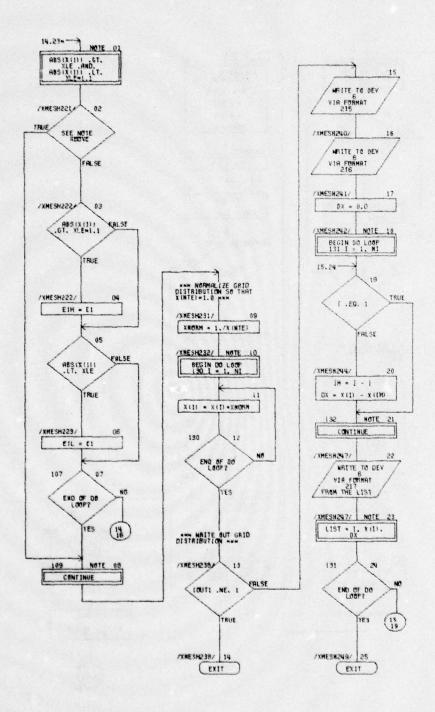


CHART TITLE - SUBROUTINE XC2(XLE, XTE, KIM1, XIN, JMAX, XOR, CORDX, TOUT1, KROOT)

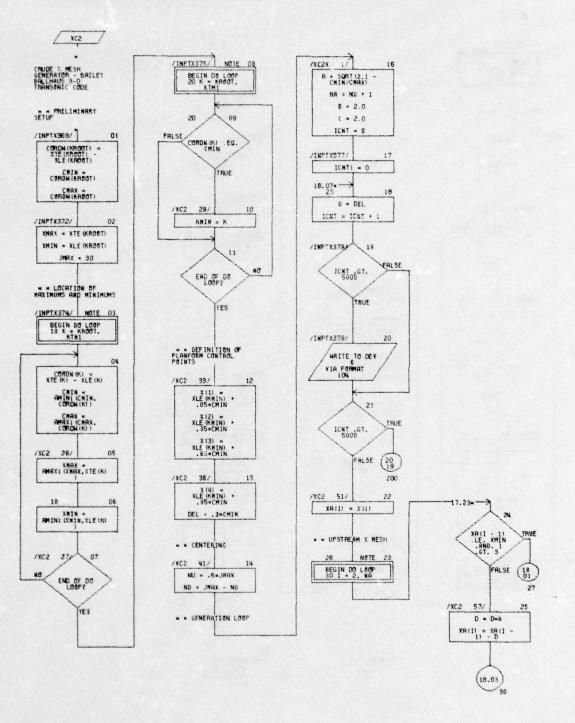


CHART TITLE - SUBBOUTINE XC2 (XLE, XTE, KTM1, XIN, JMAX, XOR, COREX, IOUT1, KROOT)

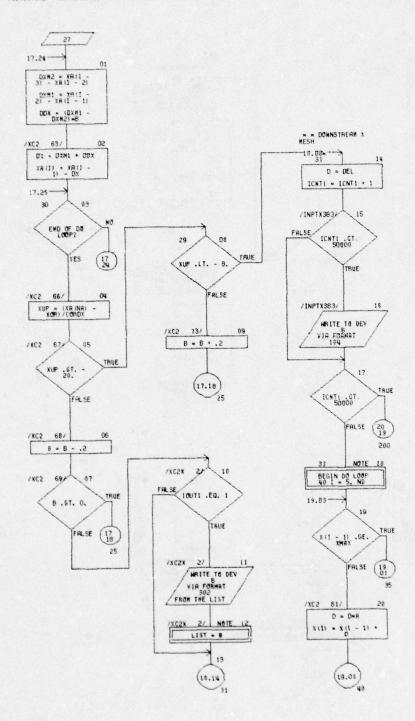
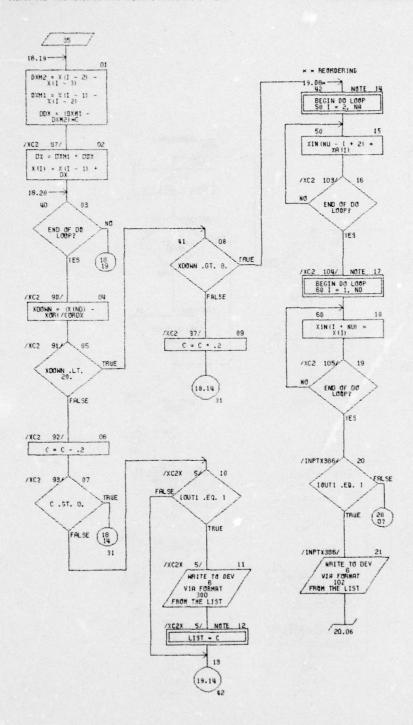
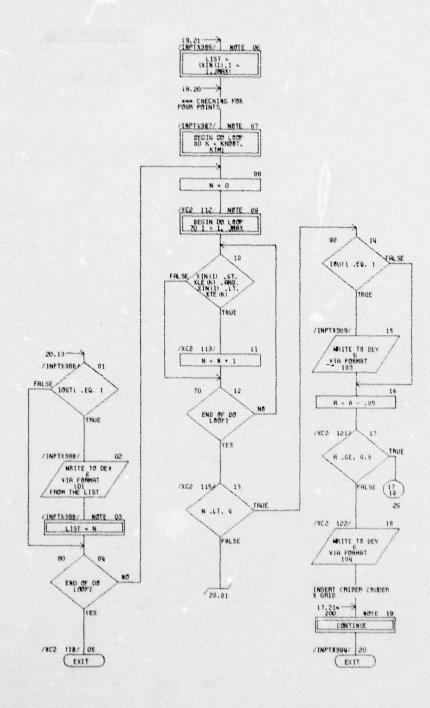


CHART TITLE - SUBBOUTINE XCE (XLE. XTE. KIMI, XIN, JMAX, XOB. COROX, LOUTI, KROOT)



CHRRT TITLE - SUBROUTINE XC2(XLE, XTE, KTM1, X(N, JMRX, XOR, CORDX, 100T1, KR00T)



## FLOW CHART - 15

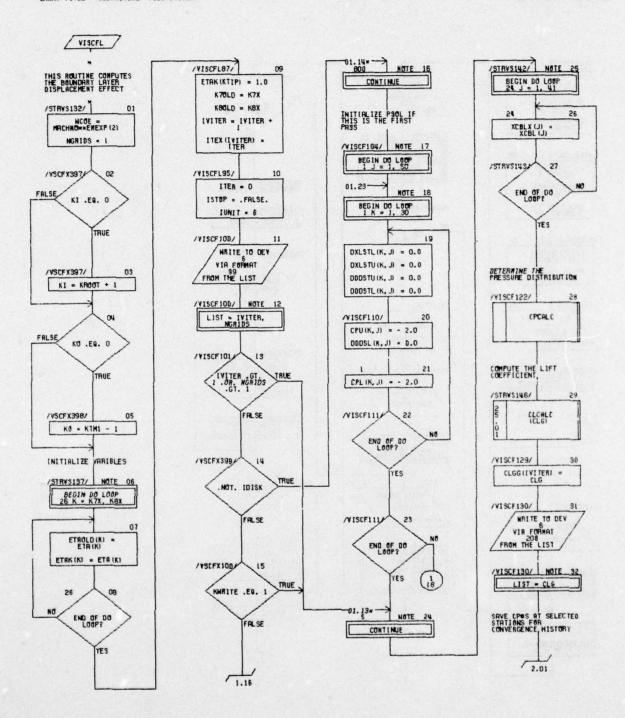
Subroutine

Page

VISCFL

1 - 16

CHART TITLE - SUBROUTINE VISCFL (ITER)



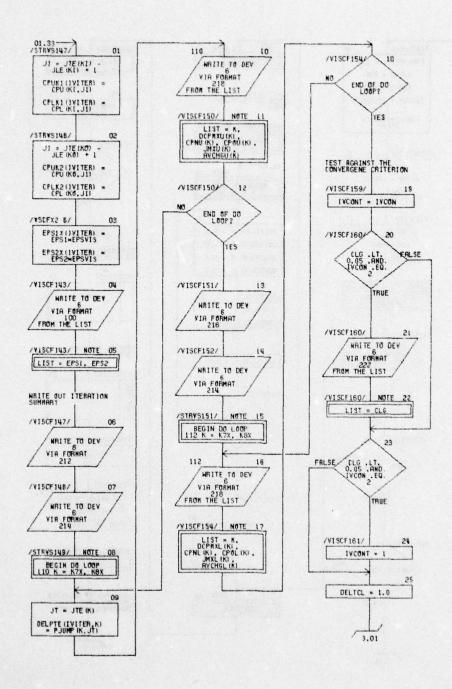
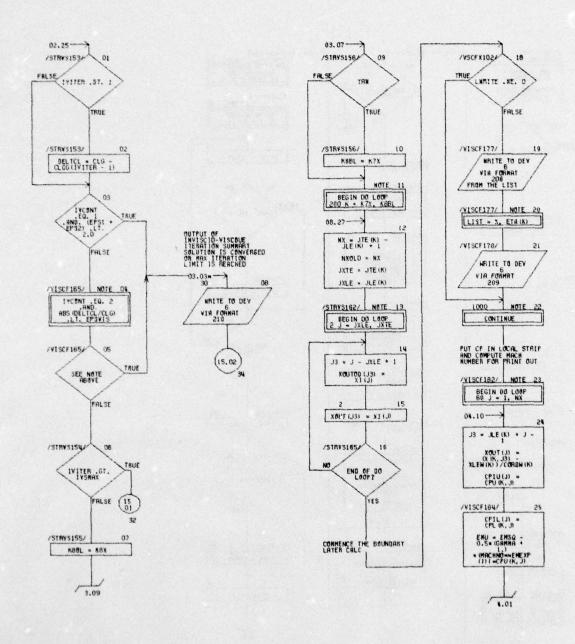


CHART TITLE - SUBROUTINE VISCEL HITER)



CHRRT TITLE - SUBROUTINE VISCEL HITER

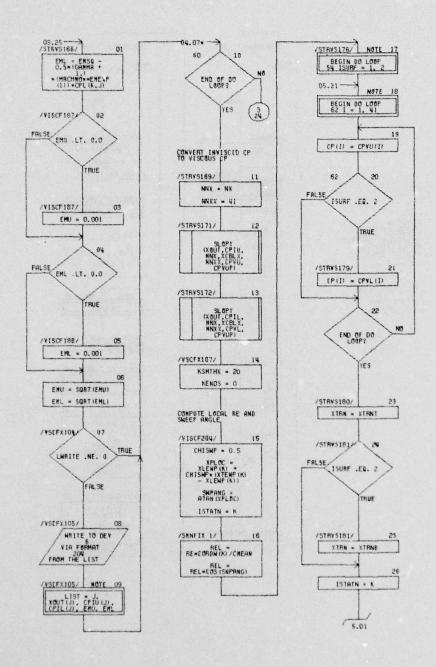


CHART TITLE - SUBROUTINE VISCEL (ITER)

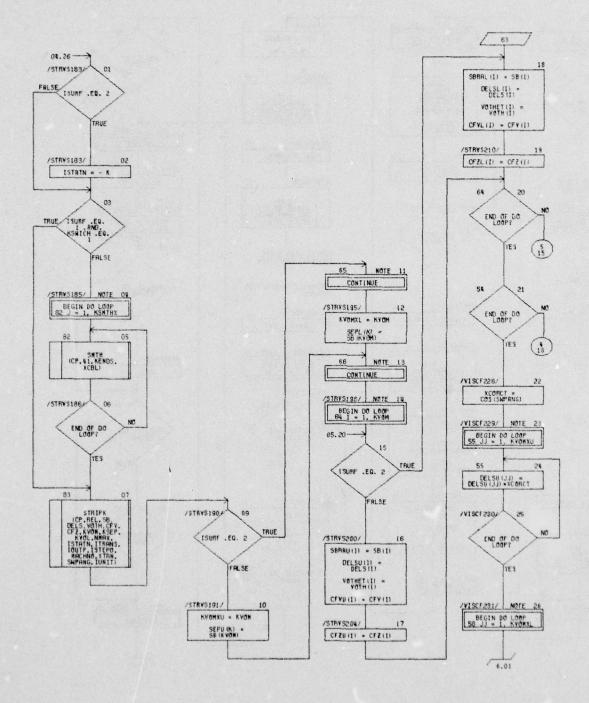
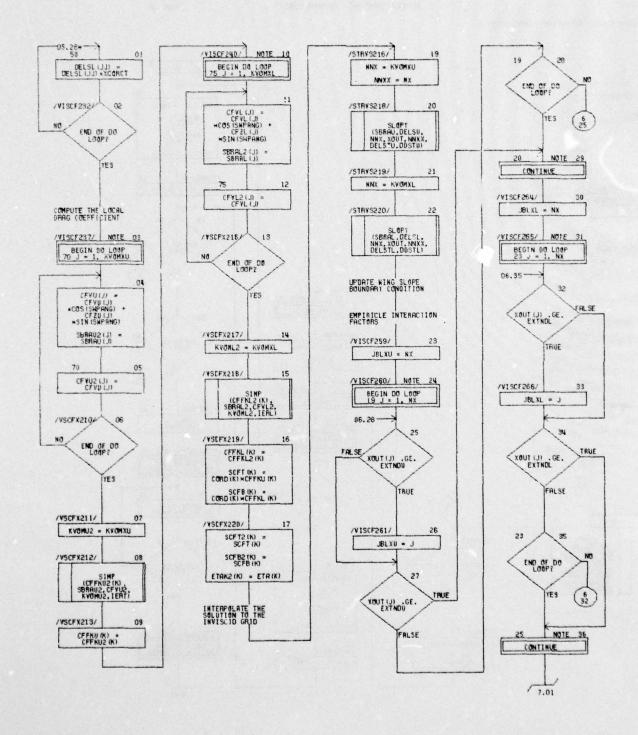


CHART TITLE - SUBROUTINE VISCEL HITER)



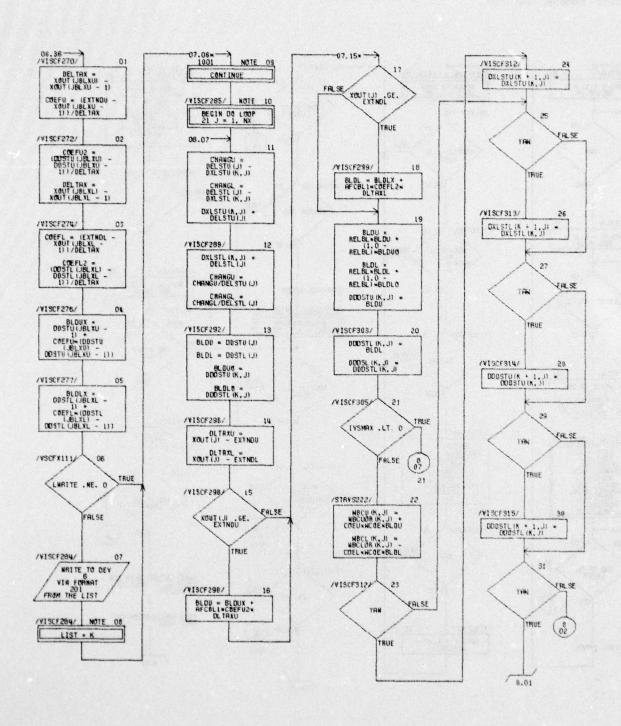


CHART TITLE - SUBMOUTINE VISCEL (ITER)

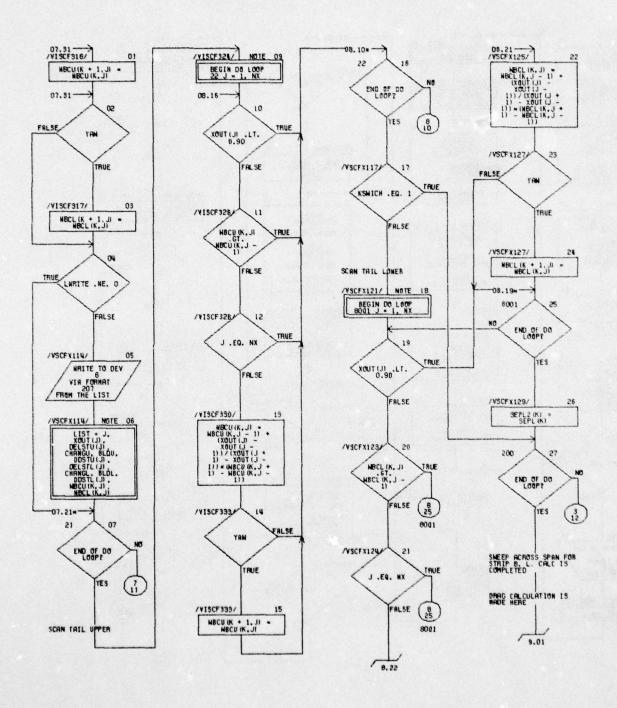


CHART TITLE - SUBBOUTINE VISCEL (ITER)

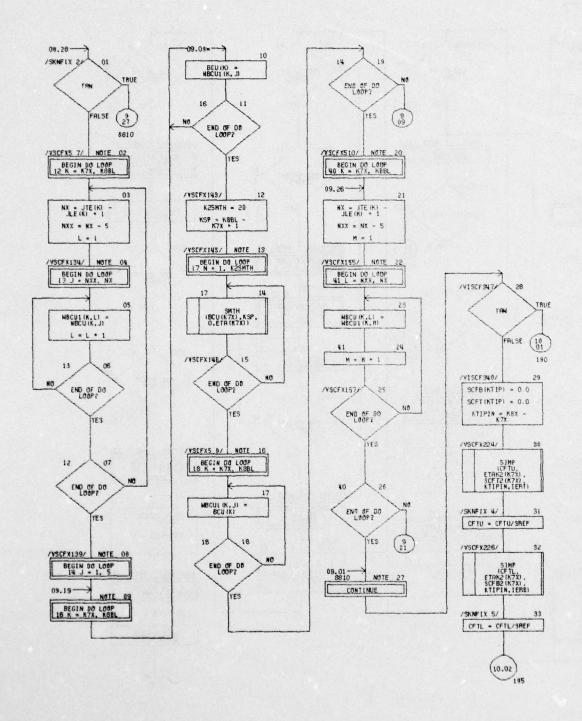


CHART TITLE - SUBROUTINE VISCEL HITER)

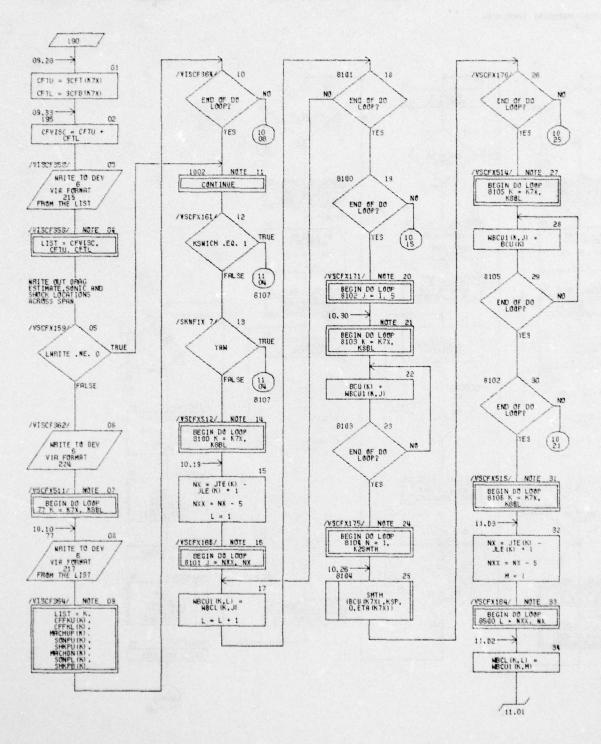
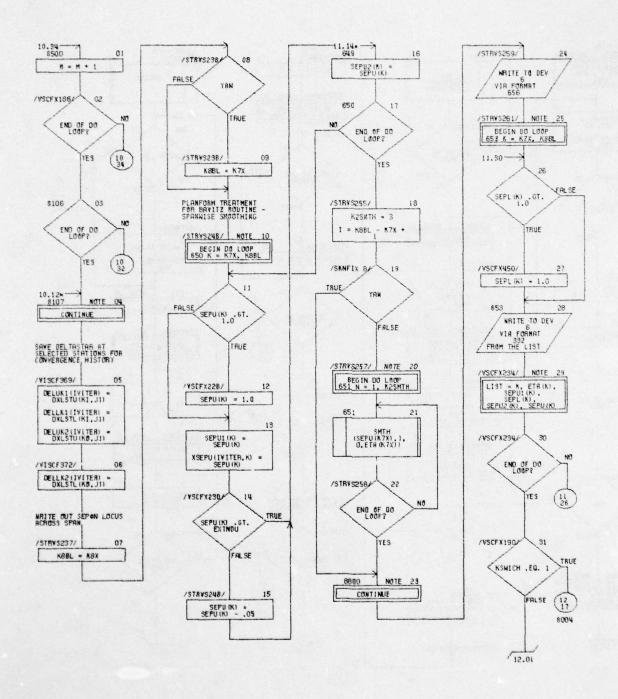


CHART TITLE - SUBROUTINE VISCEL HITER)



AD-A055 109 GRUMMAN AEROSPACE CORP BETHPAGE N Y AN AUTOMATED PROCEDURE FOR COMPUTING THE THREE-DIMENSIONAL TRANETC(U) FEB 78 W H MASON, D MACKENZIE, M STERN F33615-75-C-3073 UNCLASSIFIED  AFFDL-TR-77-122 NL													
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2012/03/2015 2012/	- Among the			Permanah Besambarah Memberah Asarah	・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・	Applied (Applied Applied Appli	Application of the control of the co	(2) (2) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	Avenue de la constante de la c	Total Supply (1979)	Total	in the party letter	And Allegaries of the State of
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CHART TITLE - SUBROUTINE VISCFL (ITER)

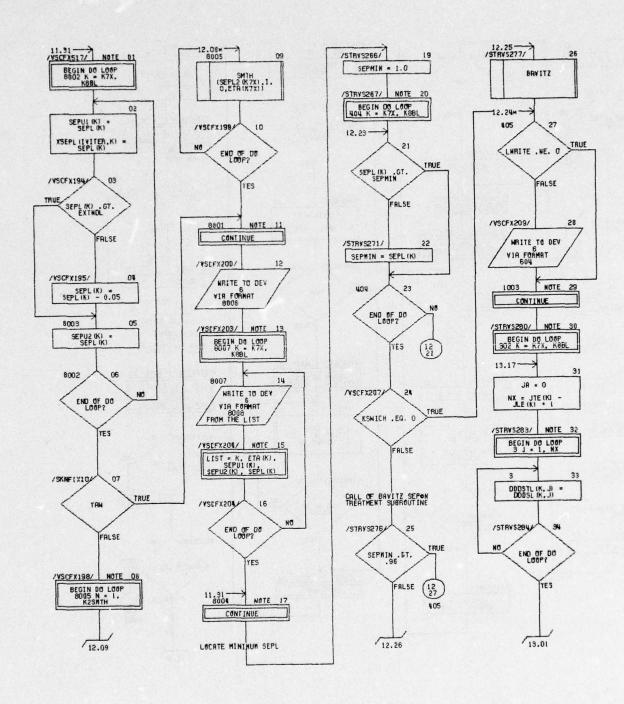
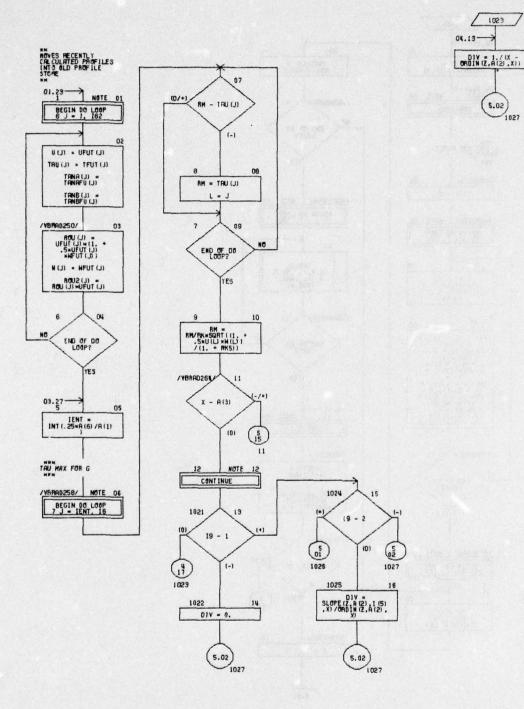


CHART TITLE - SUBRODTINE YERRO (SERR, YOUEL, YOTHET, CFY, CFZ, CP. 1. A. RE, HO, XLANDA, KS



CHRRT TITLE - SUBROUTINE VBRAD (SBRA, YOUEL, VOTHET, CFY, CFZ, CP, 1, A, RE, HO, XLANDA, KS

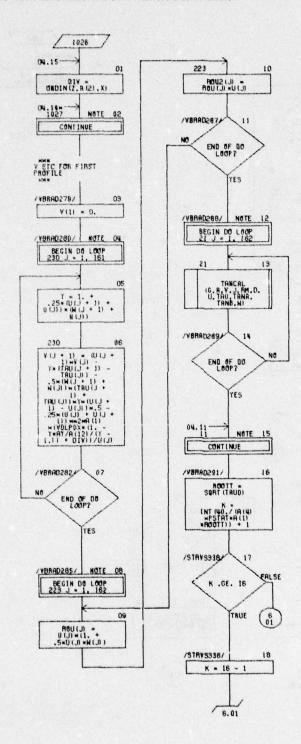


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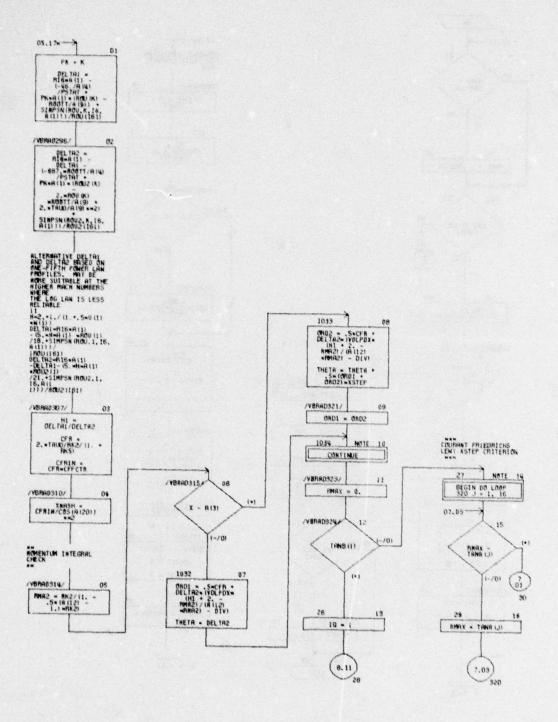


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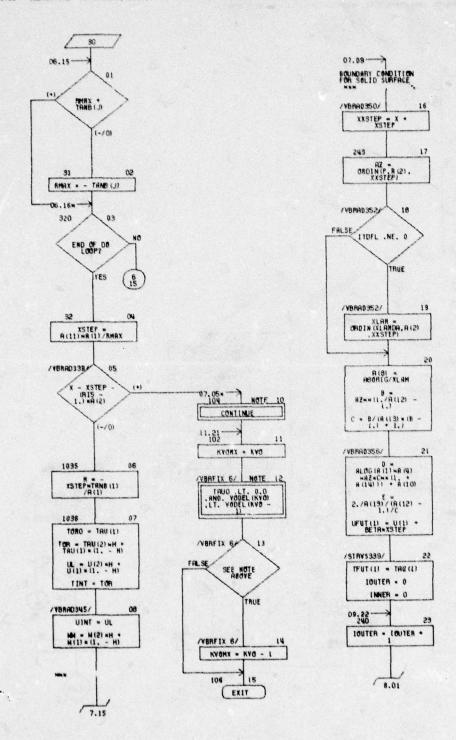


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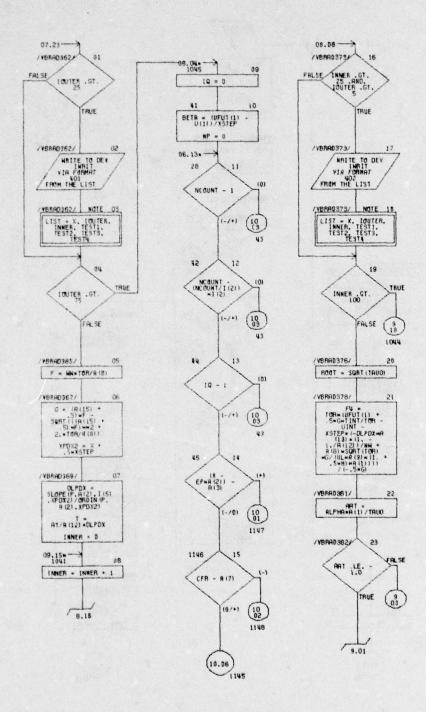
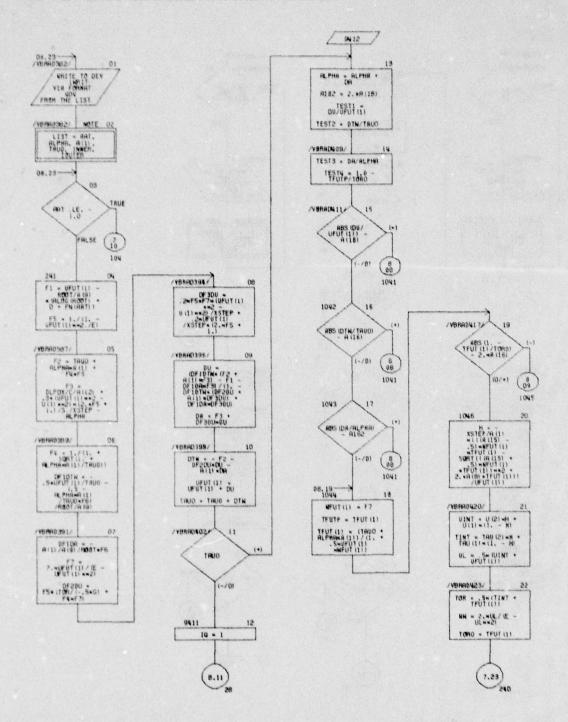


CHART TITLE - SERNOUTINE VERAD (SBRA, YOUEL, YOTHET, CFY, CF2, CF, 1, A. RE, HO, XLANDA, KS



CHRRT TITLE - SUBBOUTINE VERBOUSBAR. VOOEL, VOTHET, CFV, CFZ, CF, I.A. RE, HO, XLANDR. KS

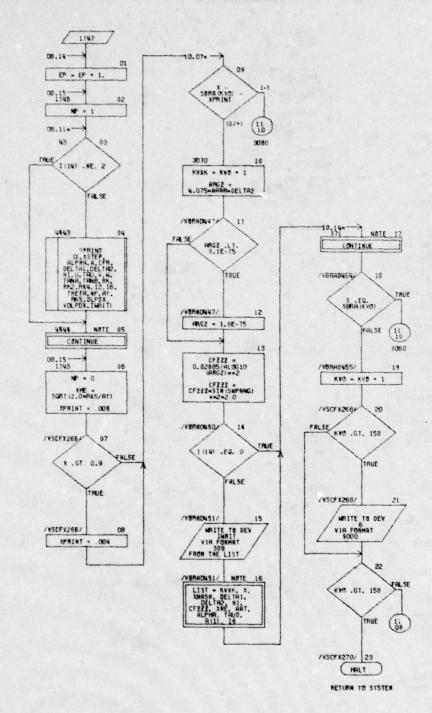


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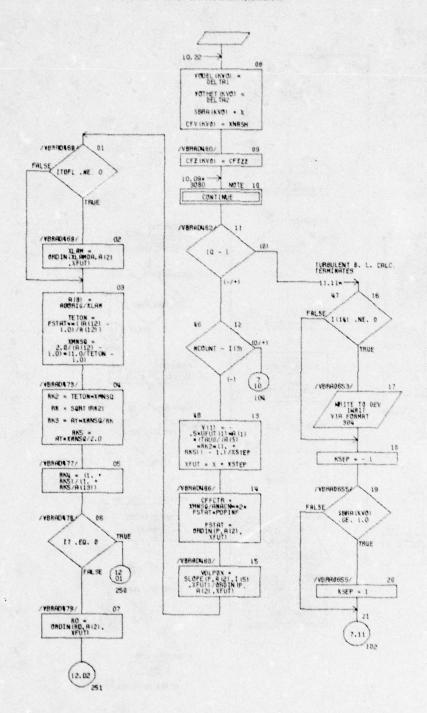
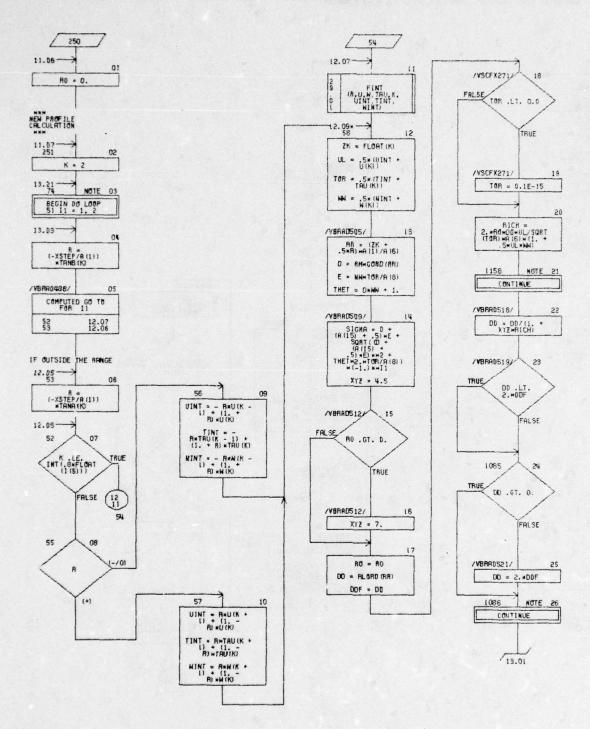
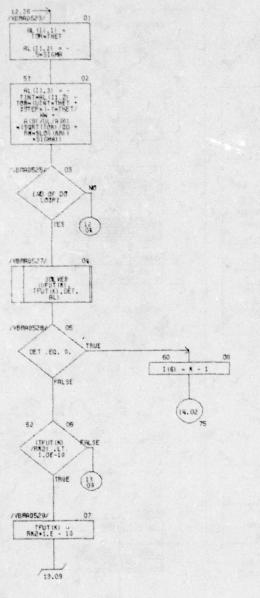


CHART TITLE - SUBMOUTINE VERAD (SBRA. YOUEL, YOTHET, CFY, CFZ, CP, I.A. RE. HO. XLANDA, KS



CHRRY TITLE - SUBBOUTINE VERBO ISBRR, VODEL, VOTHET, CFV, CFZ, CF. 1, A, RE. HO, XLANDA, KS



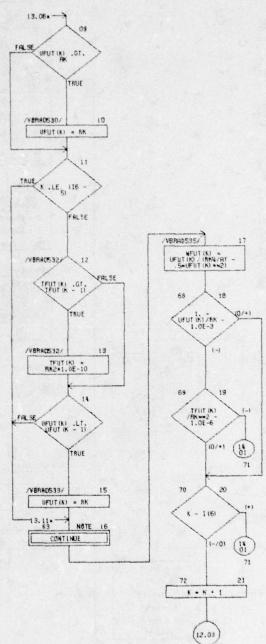


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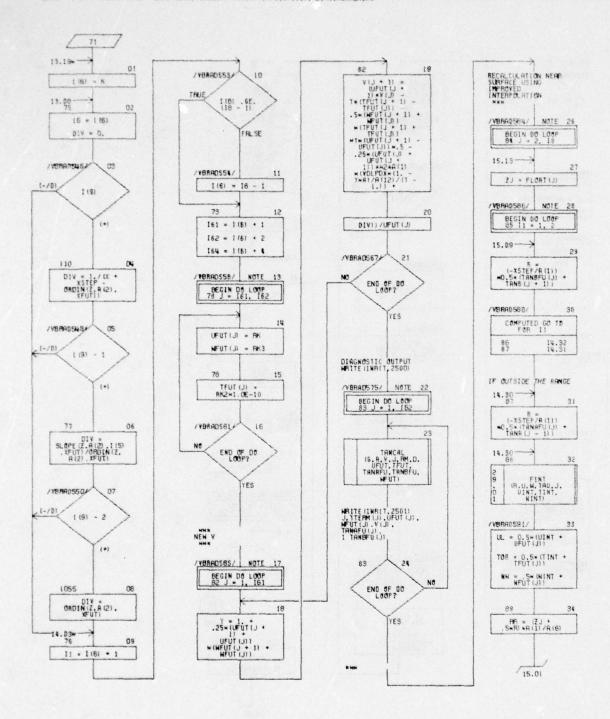


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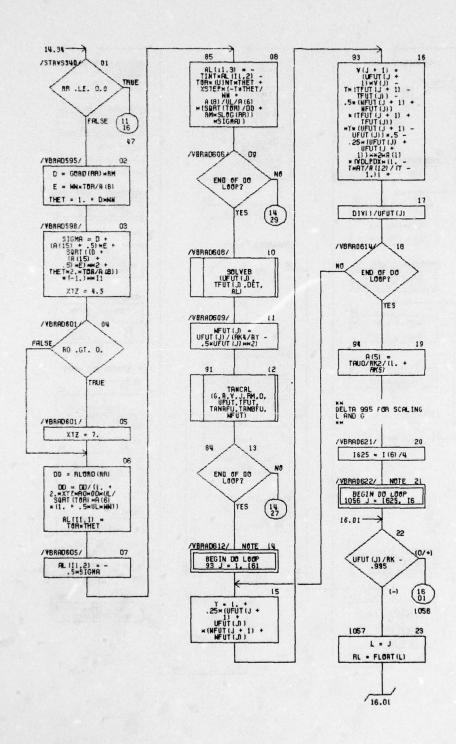


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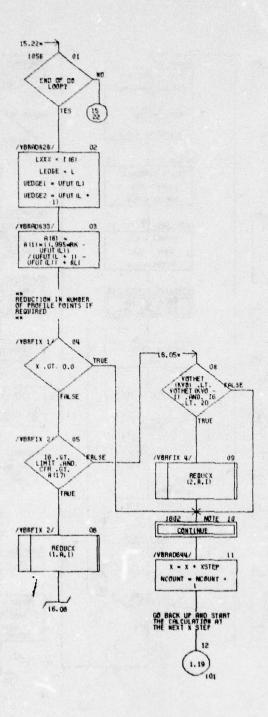


CHART TITLE - SUBROUTINE BLLAM (SBRA, VODEL, VOTHET, CFV, CFZ, CP, XLAMDA, IVI, VA, RE, HO

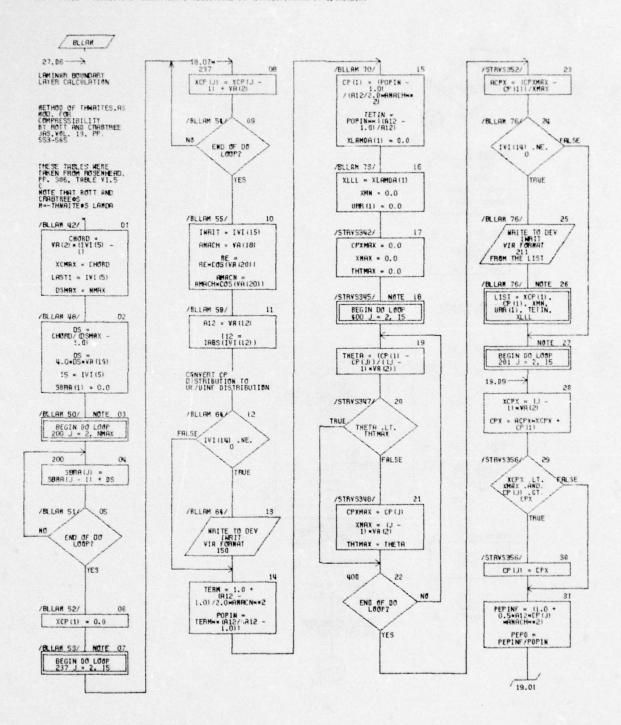


CHART TITLE - SUBROUTINE BLLAM (SBRA, YODEL, YOTHET, CFY, CFZ, CP, XLANDA, IVI, YA, RE, HO

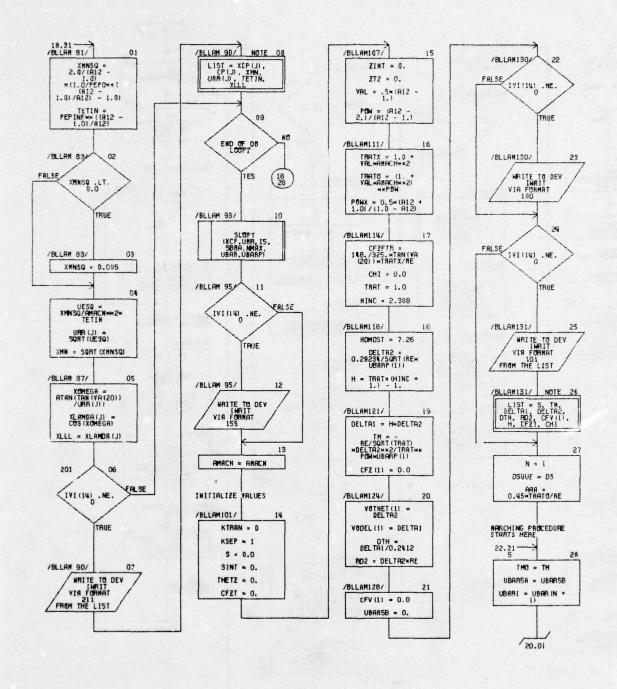


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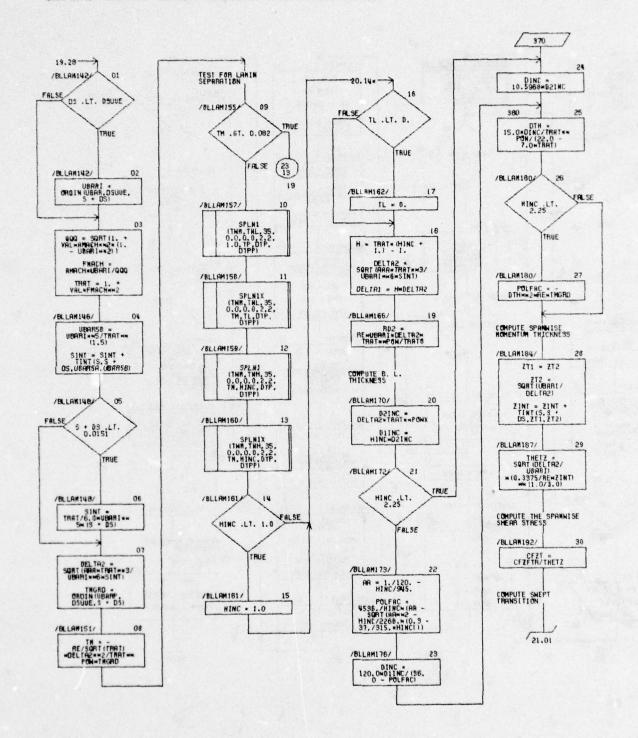


CHART TITLE - SUBMOUTINE BLLAM (SBRR, YODEL, VOTHET, CFY, CFZ CP, XLANDR, 191, YR, HE, HO

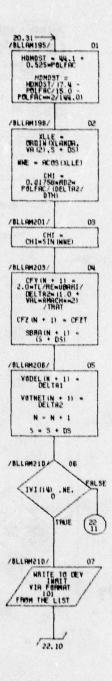
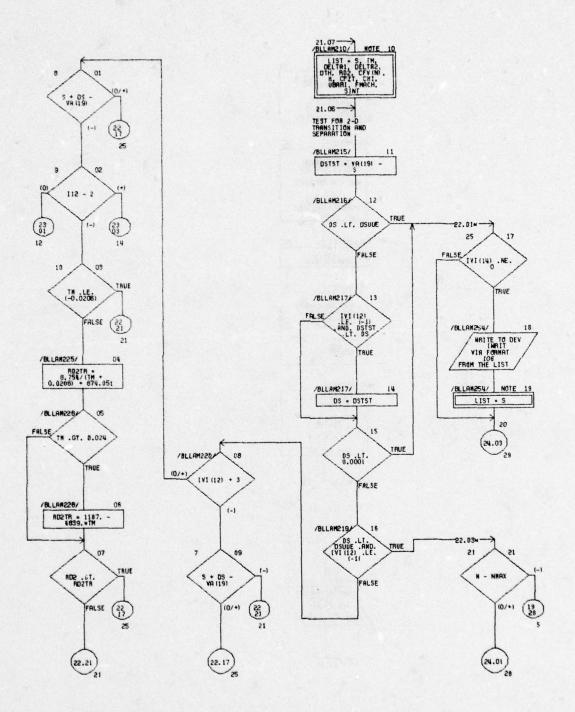
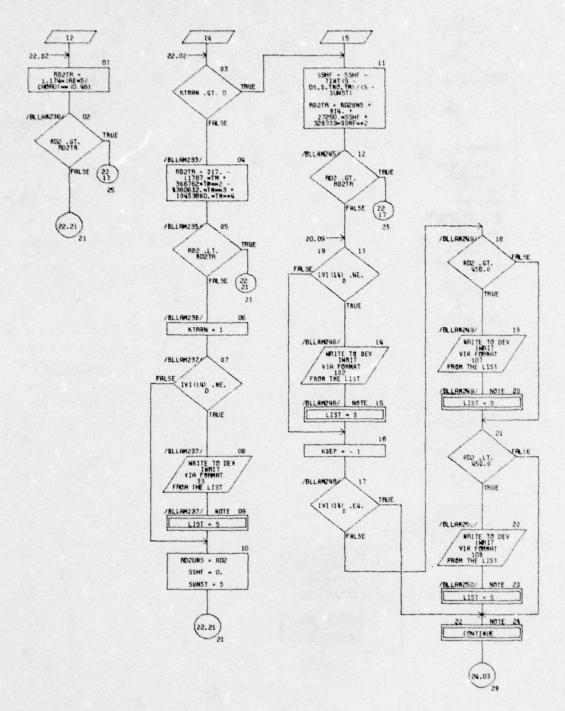


CHART TITLE - SUBMOUTINE BLLAM (SBRA, VODEL, VOTHET, CFY, CFZ, CP, XLANDA, LYI, YA, RE, HO



CHRRY TITLE - SUBMODTINE BLLAM (SBRA, VODEL, VOTHET, CFY, CFZ, CP, XLANDA, 191, YA. ME, HO



CHRRT TITLE - SUBBOUTINE BLLAM (SBRA, YOUEL, VOTHET, CFV, CFZ, CP, XLAMDA, IVI, VA. RE, HO

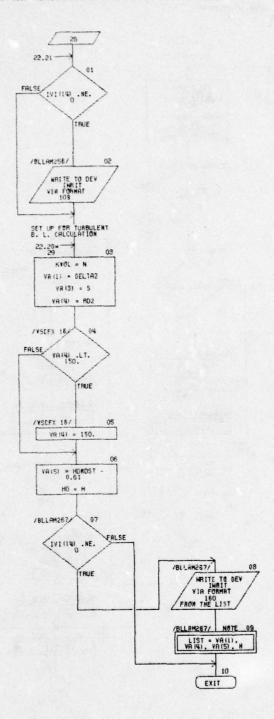


CHART TITLE - SUBMOUTINE STRIPK ICP, RX, SBRA, VODEL, VOTHET, CFV, CFZ, KYONX, KSEP, KYOL

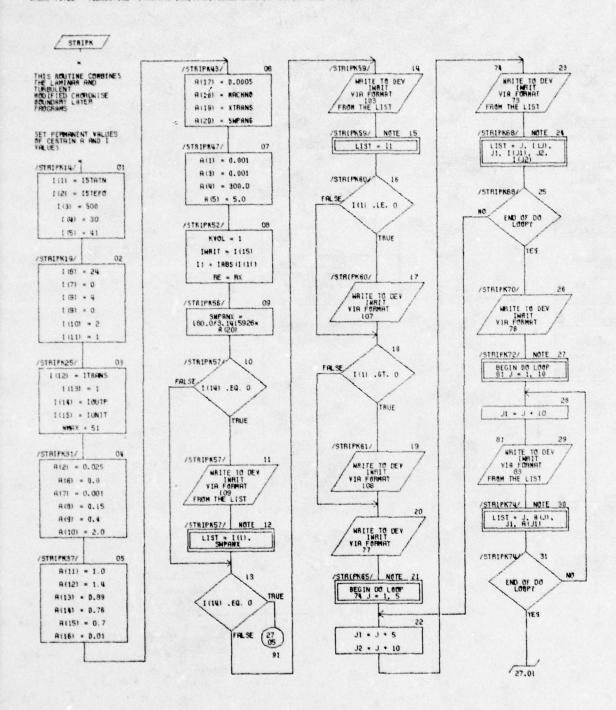


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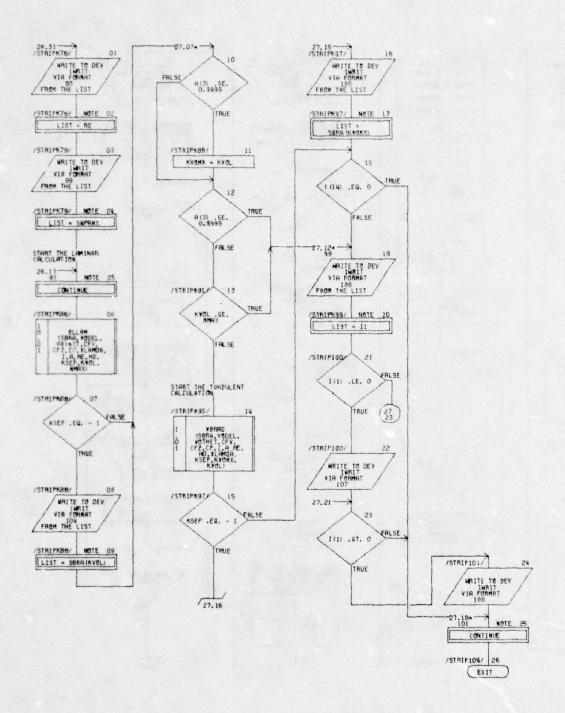
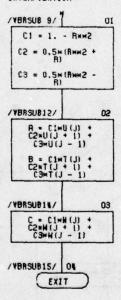


CHART TITLE - SUBROUTINE FINT OR, U. N. T. J. R. B. C)



## SIMULTRENEOUS TRIPLE INTERPOLATION



10/22/77

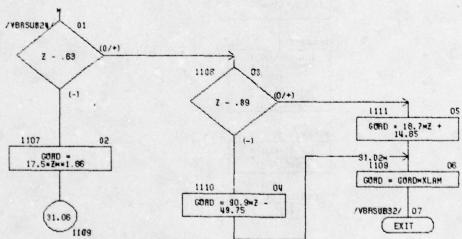
AUTOFLOW CHART SET - FLOCHART GORD

PAGE 31

CHART TITLE - FUNCTION GORD (Z)

FOR USE IN YBRAD

BRADSHAMPS & FUNCTION



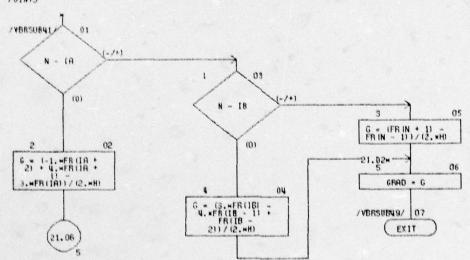
## FLOW CHART - 17

Subroutine Autoflow Page
GRAD 21

CHART TITLE - FUNCTION GRAD (FR. H. IR. IB. N)

FOR USE IN YERAD AND BLLAM

SLOPE OF A FUNCTION AT ITS TABULATED POINTS



## FLOW CHART - 18

Subroutine	Autoflow Page
ORDIN	1
RIORD	3
SIMPSN	5
SLOPE	7
SOLVEB	9

CHRRT TITLE - FUNCTION GROIN(A, G, X)

FOR USE IN YBRAD AND BLLRM

## LINEAR INTERPOLATION

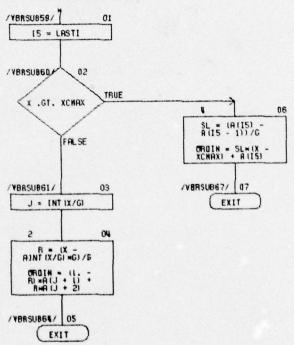


CHART TITLE - FUNCTION REURD (2)

FOR USE IN YBRAD

#### BRADSHAMOS L FUNCTION

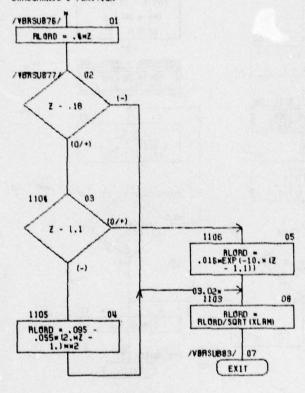


CHART TITLE - FUNCTION SIMPSNOFR. IR. N. H)

FOR USE IN YBRAD

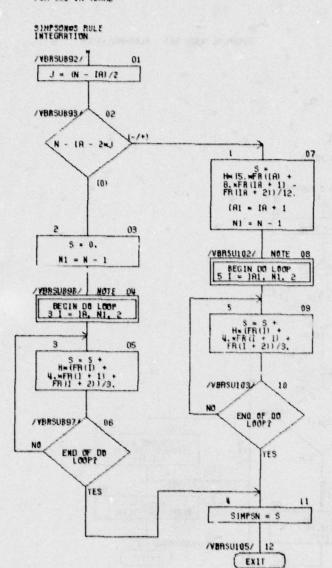


CHART TITLE - FUNCTION SLOPE (R. G. N. X)

#### FOR USE IN YBRAD

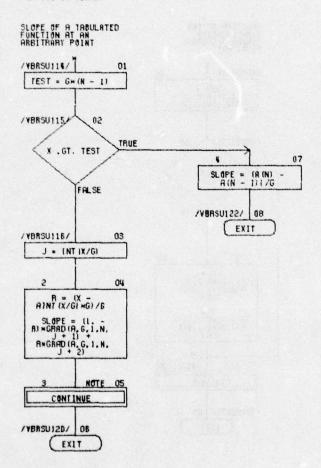
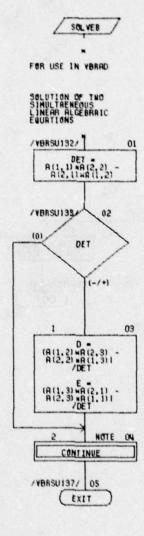


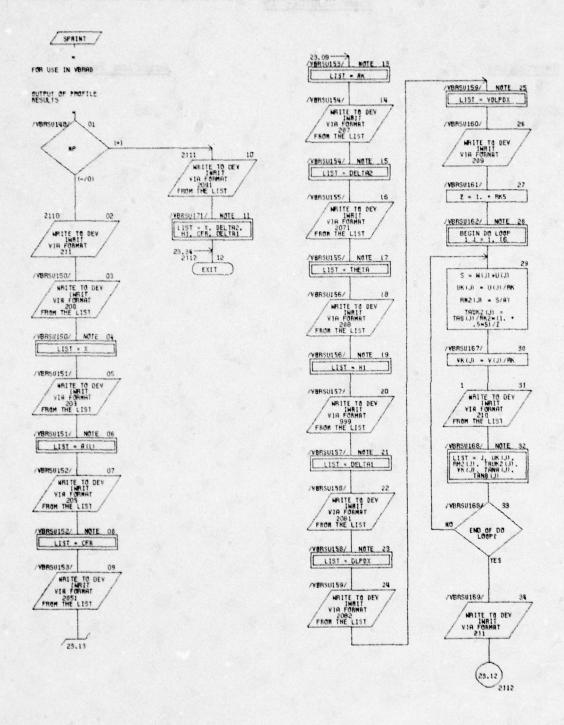
CHART TITLE - SUBROUTINE SOLVEBID, E, DET. A)



# FLOW CHART - 19

Subroutine Autoflow Page
SPRINT 23

CHART TITLE - SUBROUTINE SPRINT IX. XSTEP, ALPHO, A, CFR, DELTAL DELTAZ, HI. U. TAU. V. N.



# FLOW CHART - 20

Subroutine	Autoflow Page
TANCAL	ni wijasaya
VNUSUB	3
REDUCX	4 - 5
VTRANS	7 - 9
CPCAIC	12 - 16

CHART TITLE - SUBROUTINE TANCAL IG. R. V. J.RM. D. U. T. TR. TB. N)



FOR USE IN YBRAD

COMPUTES THE CHARACTERISTIC ANGLES FOR USE IN THE SOLUTION

EQN. 21 OF BRADSHAN AND FERRISS

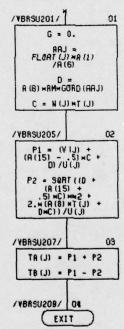


CHART TITLE - SUBMOUTINE VNUSUB INETHET, XLAMBA, VNUEFR, XMESQI

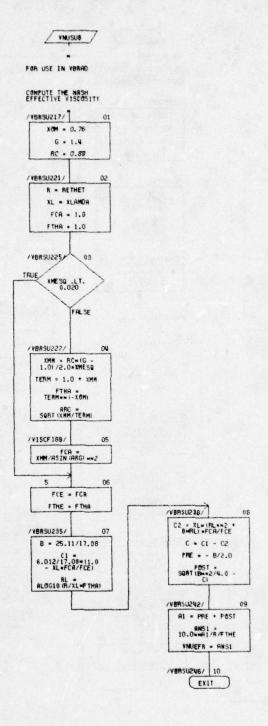


CHART TITLE - SUBROUTINE REDUCK (IN.R.I)

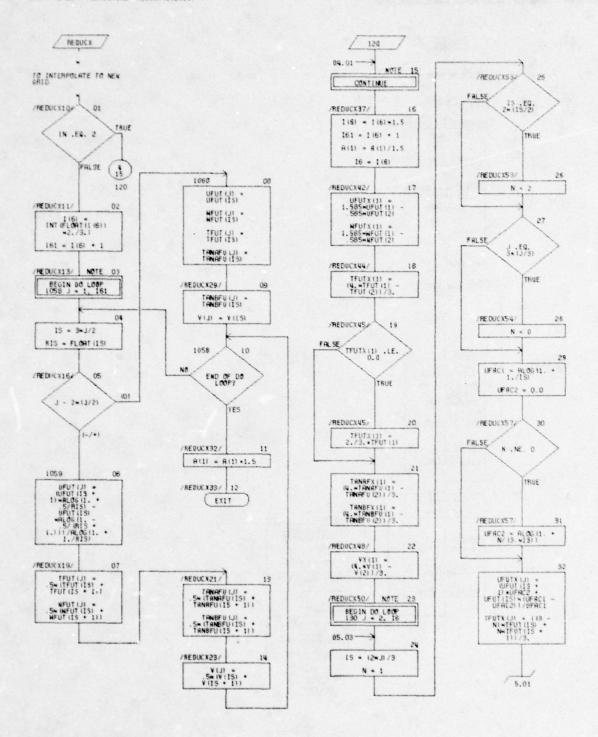
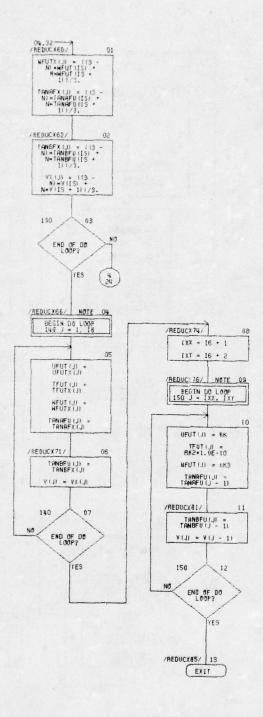


CHART TITLE - SUBBOUTINE REDUCK (IN.A.I)



CHRRT TITLE - SUBROUTINE VIRANS

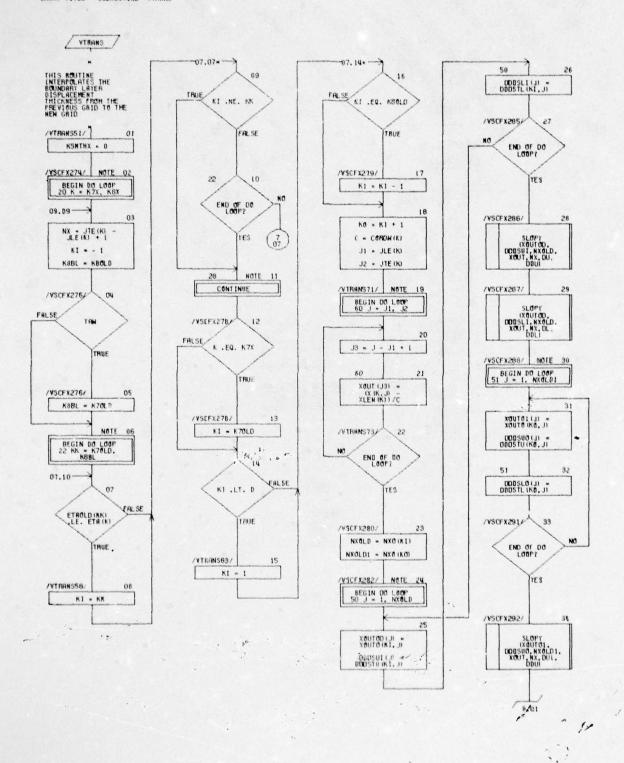


CHART TITLE - SUBROUTINE VIRANS

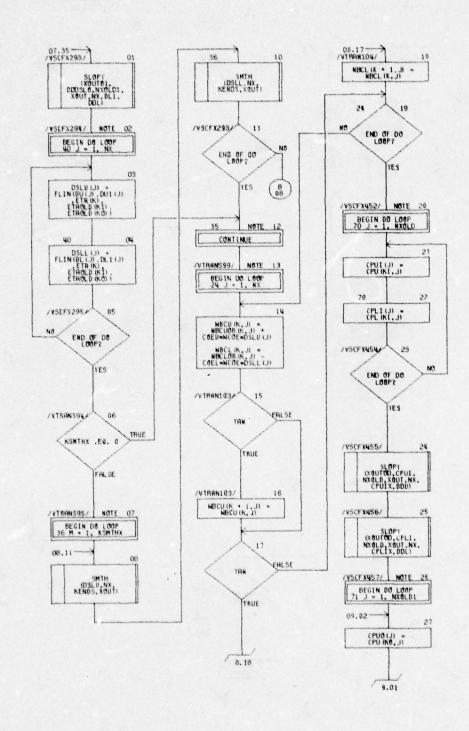


CHART TITLE - SUBROUTINE VIRANS

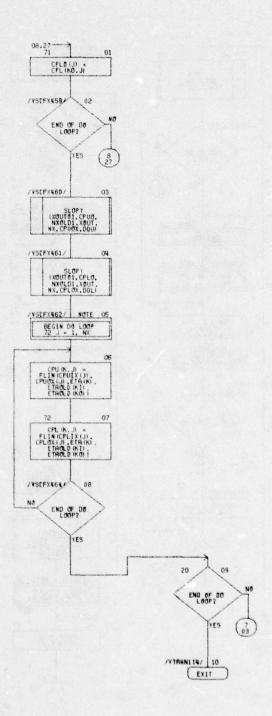
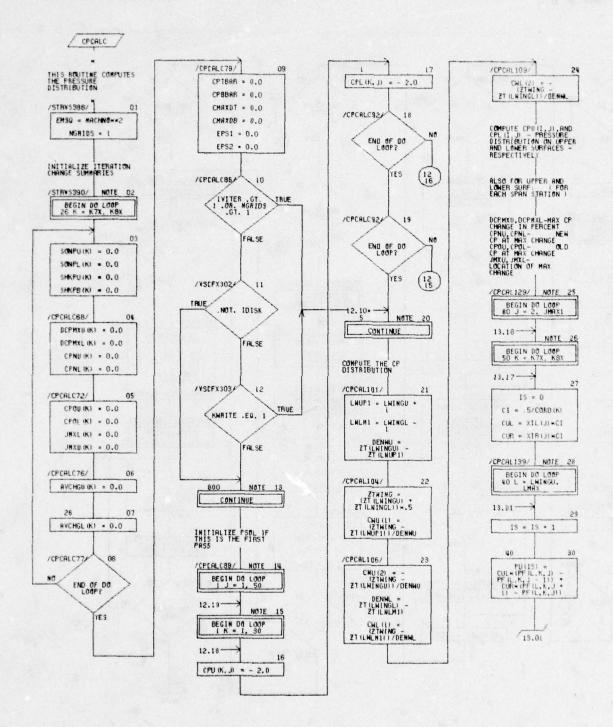


CHART TITLE - SUBROUTINE CPCALC



CHRRY TITLE - SUBROUTINE CPCALC

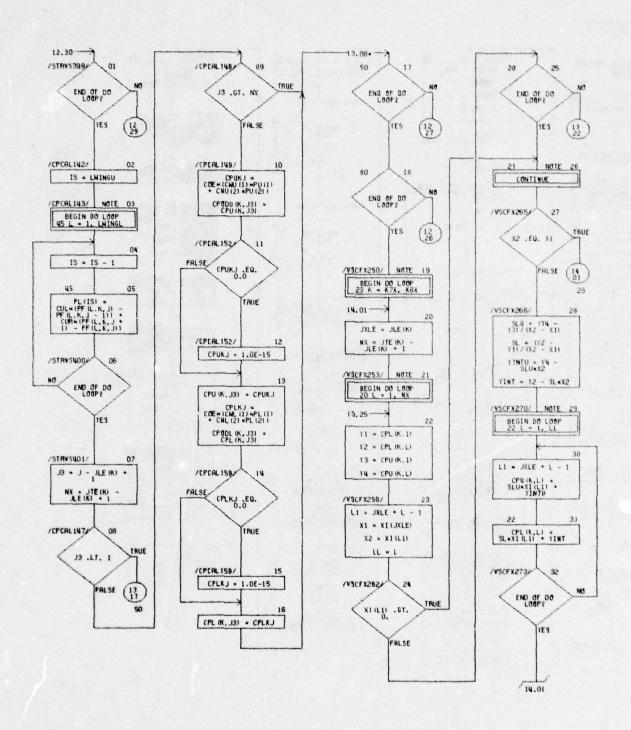
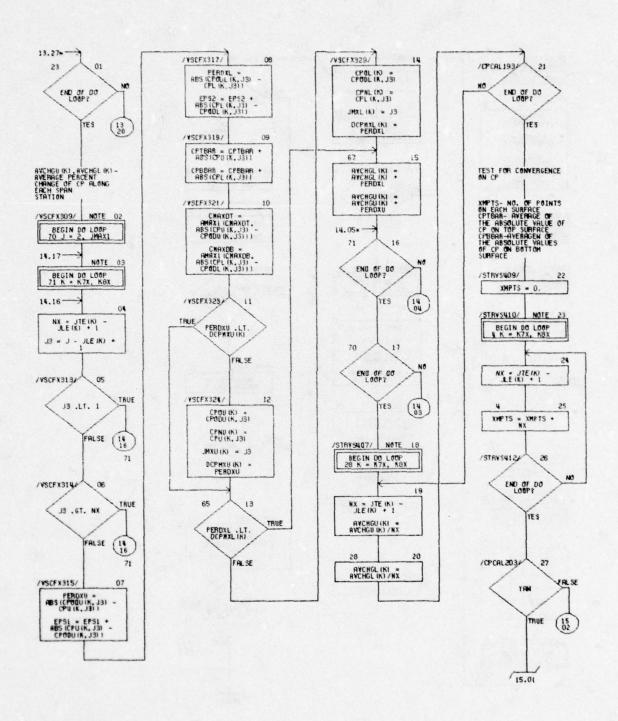
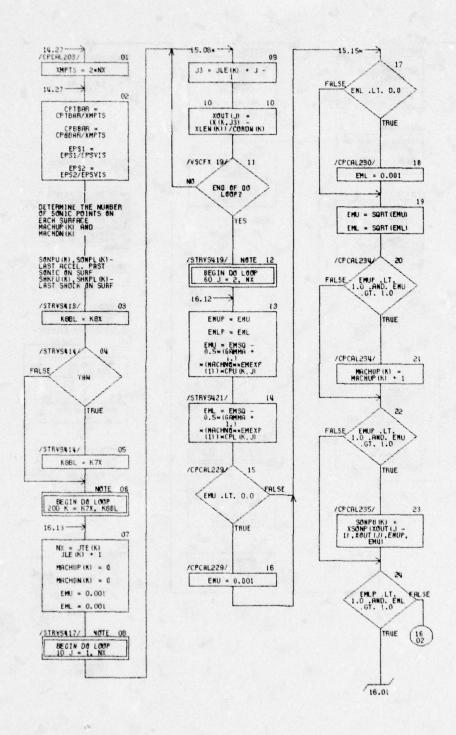


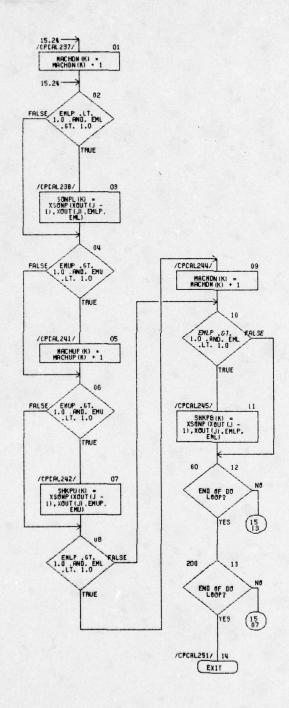
CHART TITLE - SUBROUTINE CPCALC





14 × 1

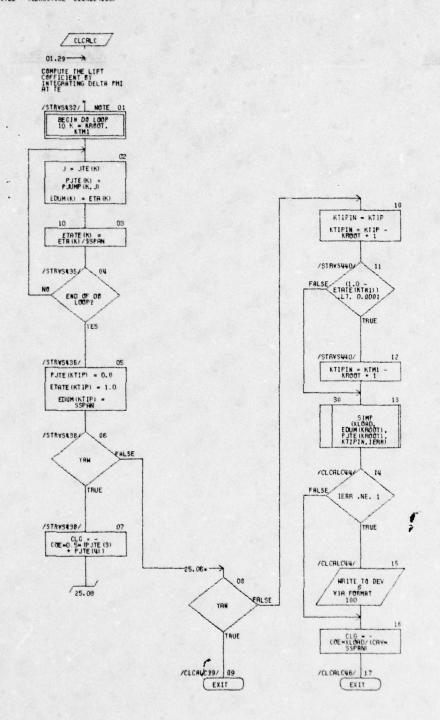
CHART TITLE - SUBROUTINE CPCALC



### FLOW CHART - 21

Subroutine Autoflow Page
CICAIC 25

CHART TITLE - SUBROUTINE CLCALC ICLES



# FLOW CHART - 22

Subroutine		Autoflow Page
BAVITZ	V	1 - 2
VINTER		5 - 16
BEND		8 - 9
FINGRD		12 - 14
CRDGRD		17 - 18

CHART TITLE - SUMMOUTINE BAYITZ

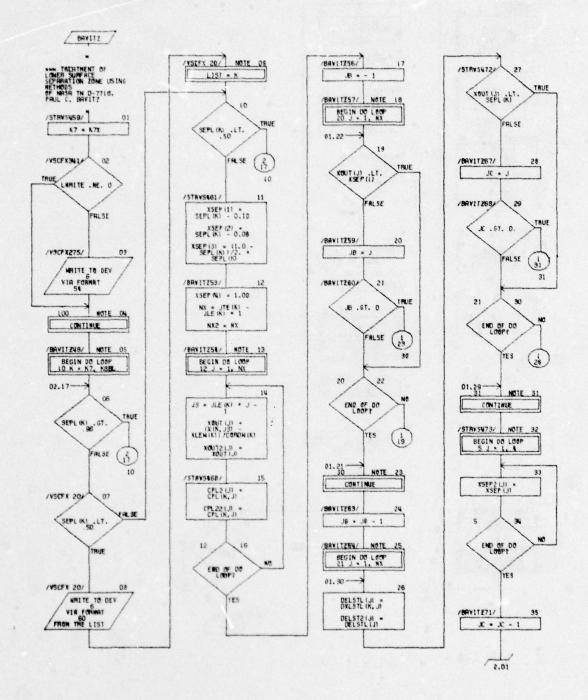


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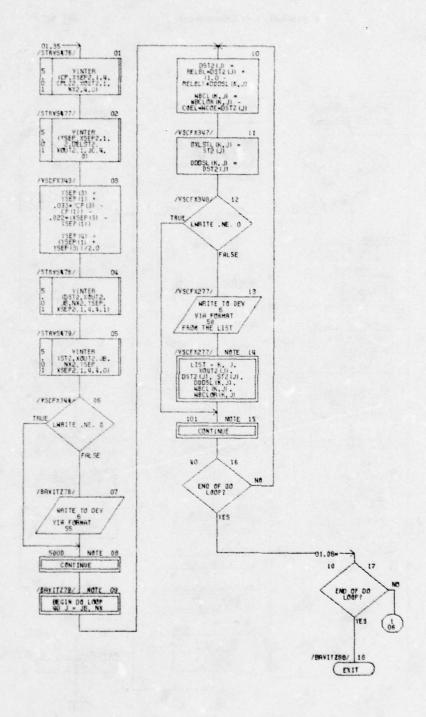


CHART TITLE - SUBMOUTINE VINTER IFN, X, KO, KNAX, VF, S, 10, (MAX, LF, IDER)

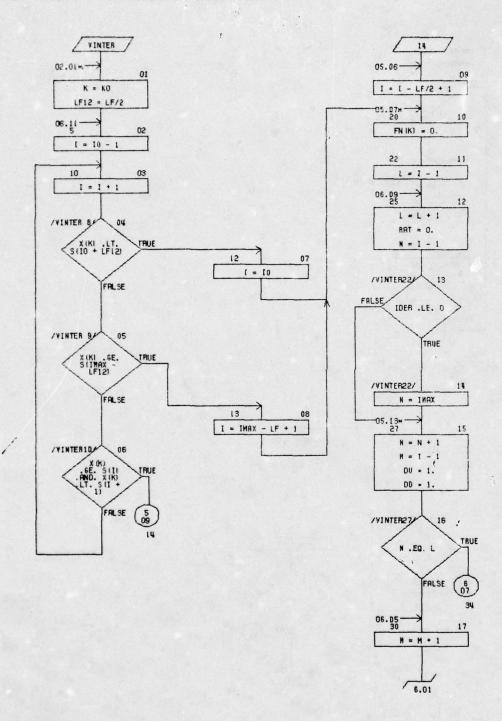
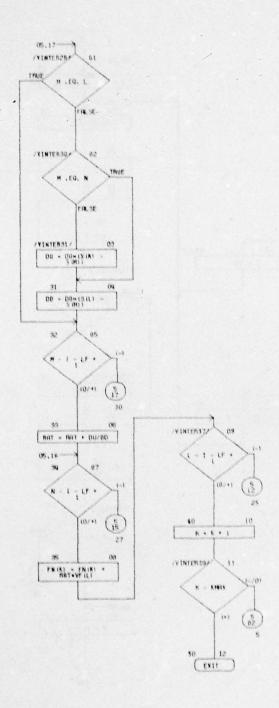


CHART TITLE - SUBMOUTINE VINTER FR. X, KO, KNIX, VF. 3, 10, 1MIX, LF. IDERI



CHRAT TITLE - SUBMOUTINE BEND

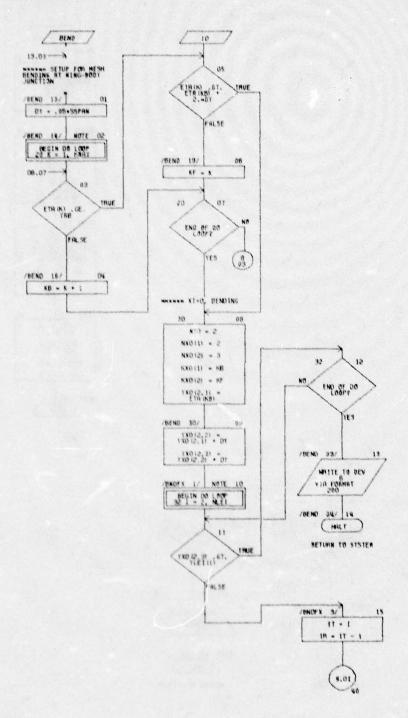


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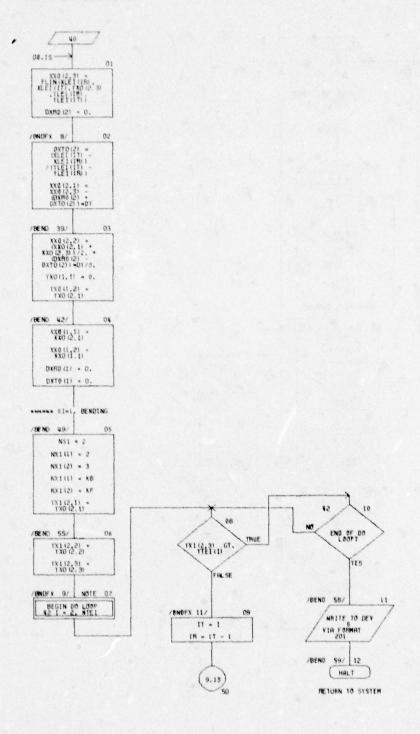




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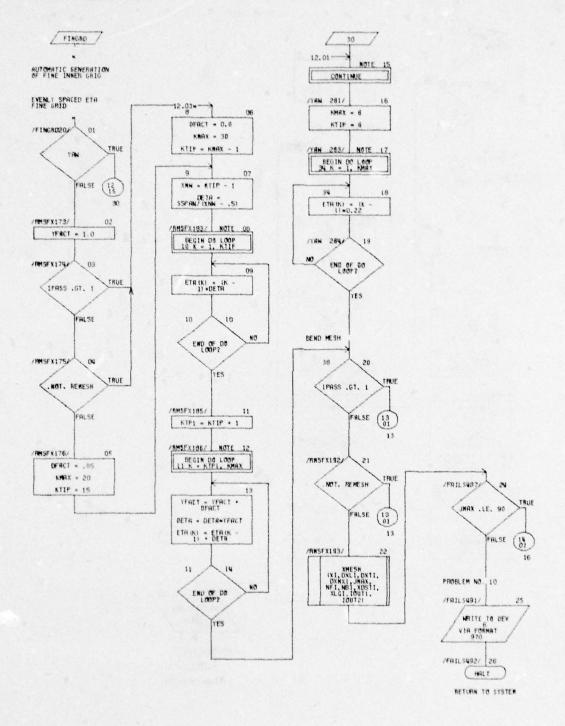
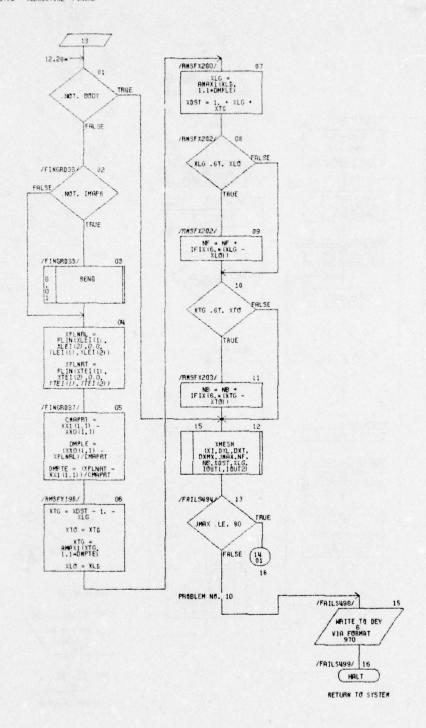


CHART TITLE - SUBBOUTINE FINGRO



CHRAT TITLE - SUBROUTINE FINGRO

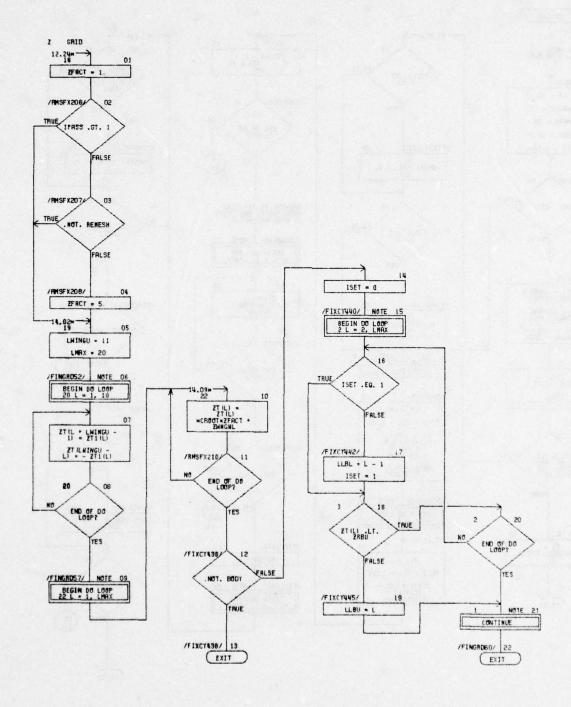


CHART TITLE - SUBROUTINE CROGRO

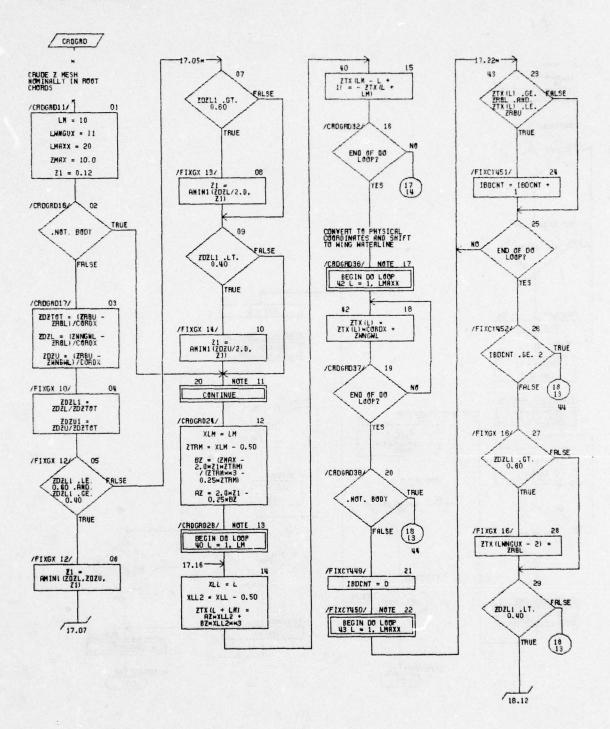
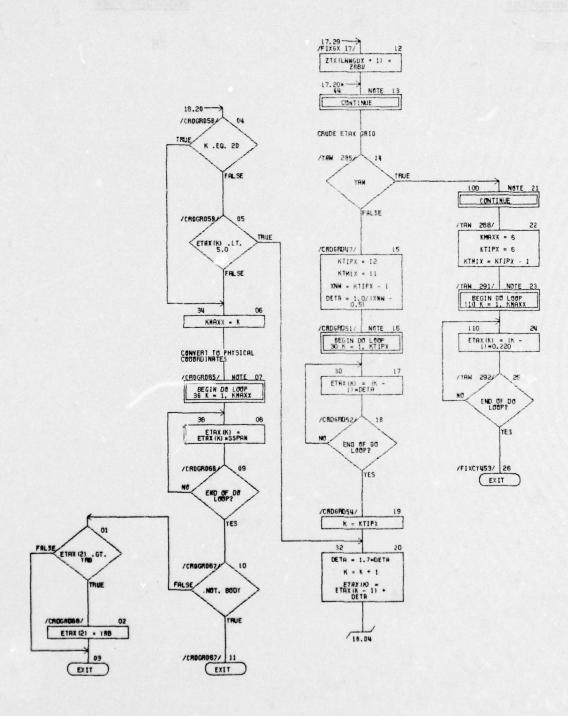


CHART TITLE - SUBROUTINE CROGRO



### FLOW CHART - 23

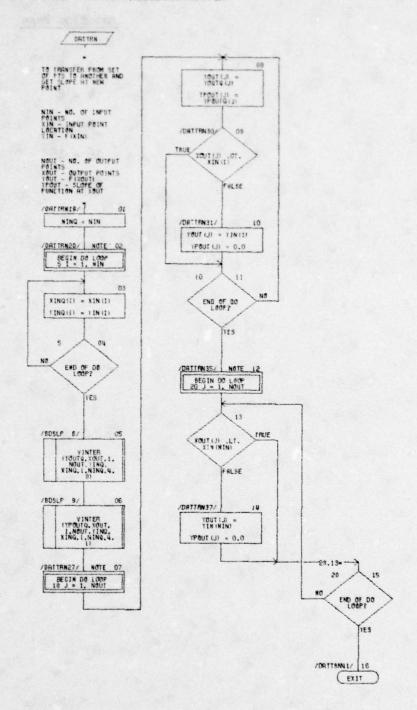
Subroutine

Autoflow Page

DATTRN

28

CHART TITLE - SUBROUTINE DATTEN ININ. XIN. YIN, NOUT, XOUT, YOUT, IPQUIL



# FLOW CHART - 24

Subroutine	Autoflow Page
ELIPSE	1 - 2
QUIK	4 - 6
BLOUT	9 - 13
MURMAN	16 - 18
POUT	21

CHART TITLE - SUBBOUTINE ELIPSE IJ. YBRICK. ZBRICK, YEL PS. ZEL (PS. FNX, FNY, FNZ)

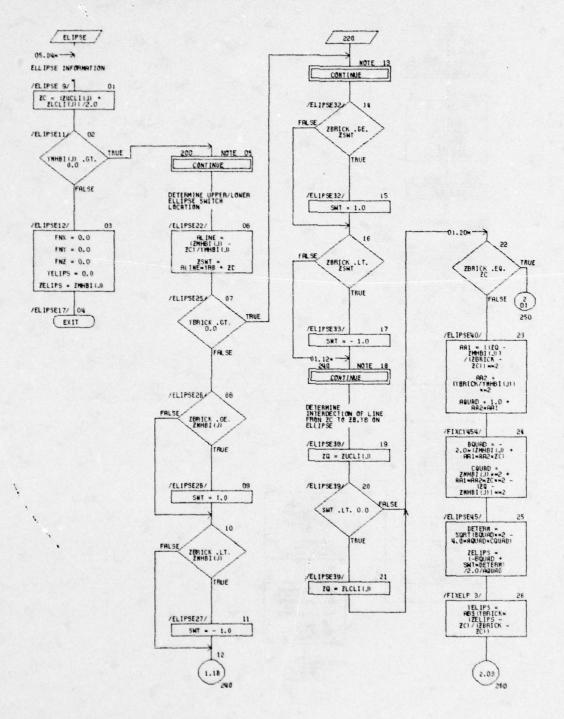


CHART TITLE - SUBROUTINE ELIPSE IJ, YBRICK, ZBRICK, YELIPS, ZELIPS, FNX, FNT, FNZ)

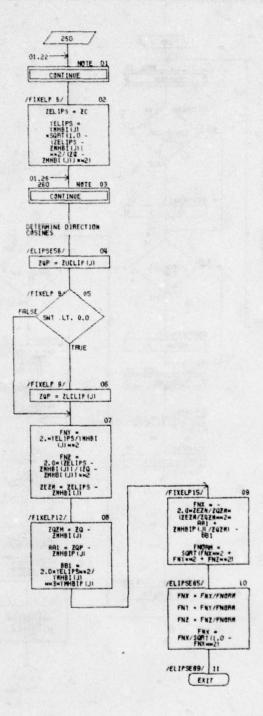
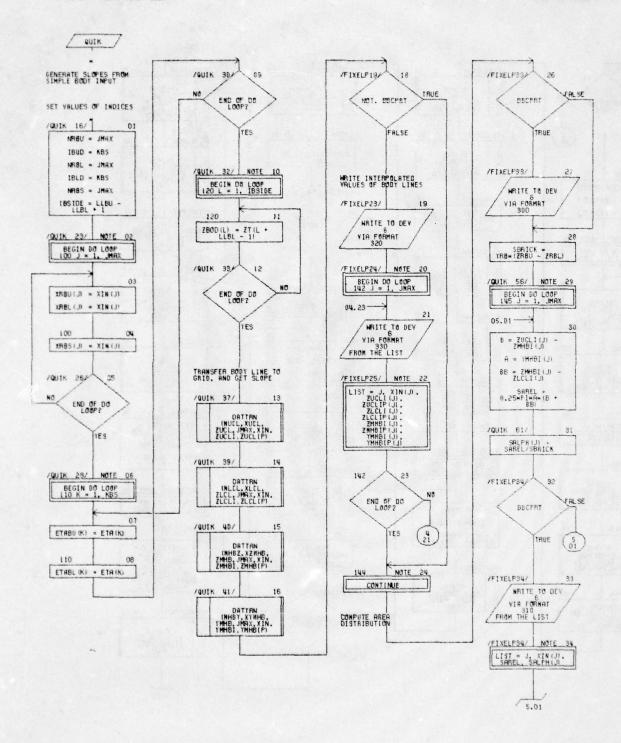


CHART TITLE - SUBBOUTINE QUIK



CHRRT TITLE - SUBROUTINE QUIK

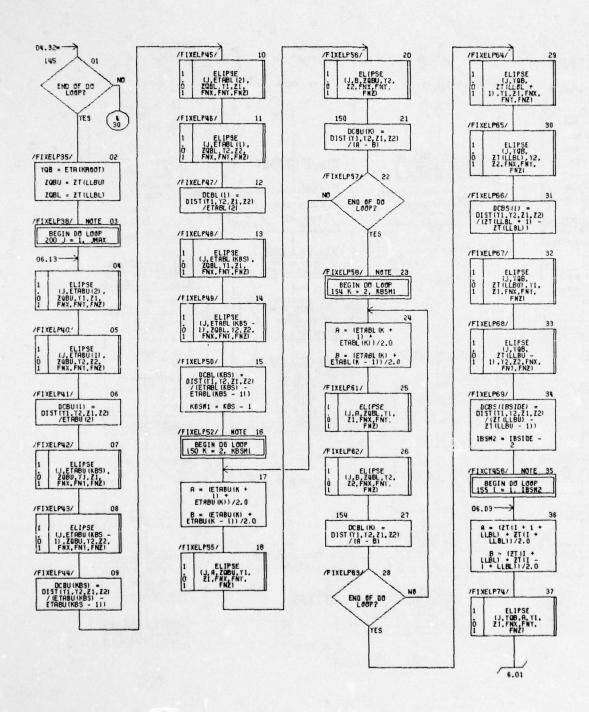


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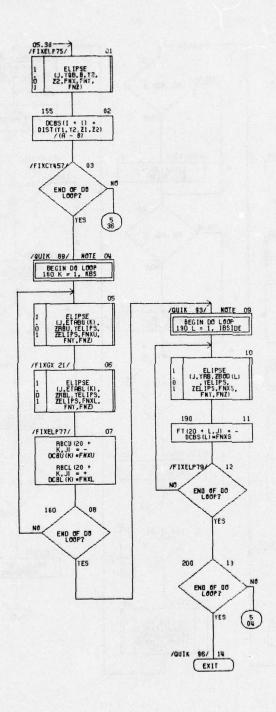


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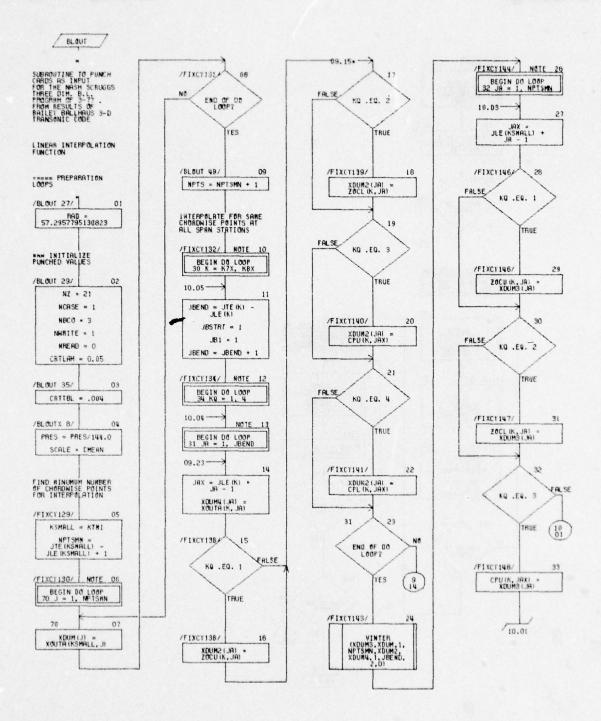


CHART TITLE - SUBROUTINE BLOUT

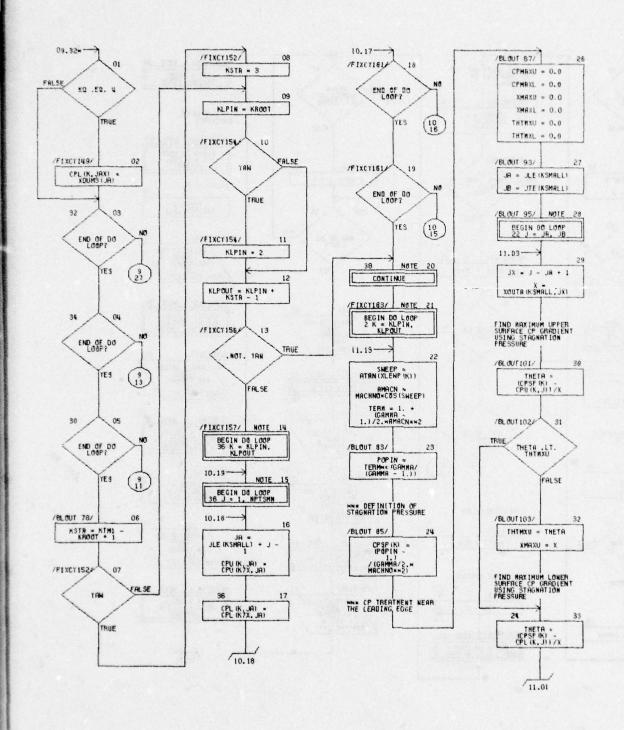


CHART TITLE - SUBMOUTINE BLOUT

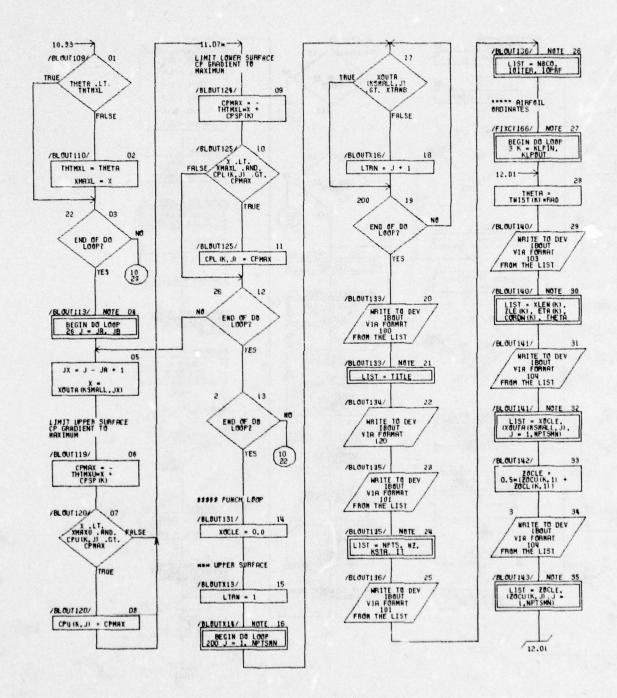


CHART TITLE - SUBROUTINE BLOUT

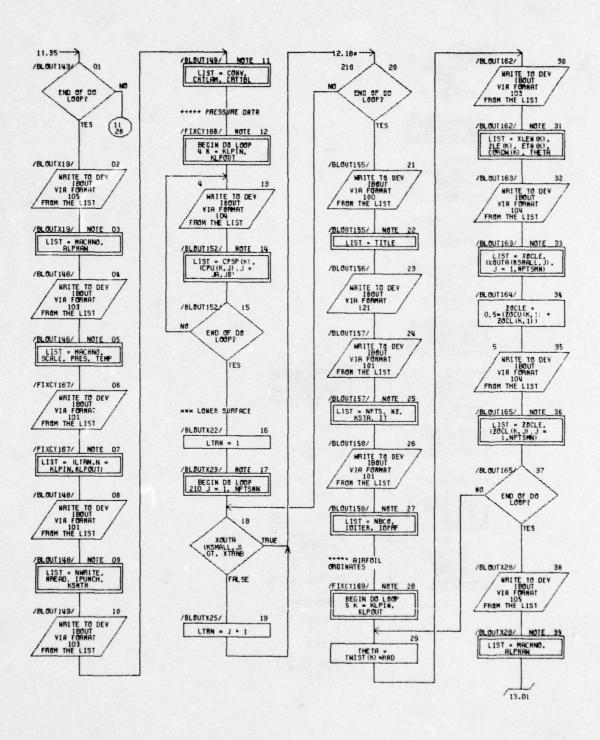


CHART TITLE - SUBROUTINE BLOUT

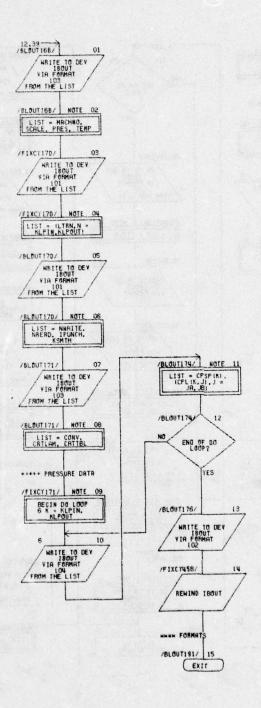


CHART TITLE - SUBSCUTINE MURMAN IIT. XSHKPI

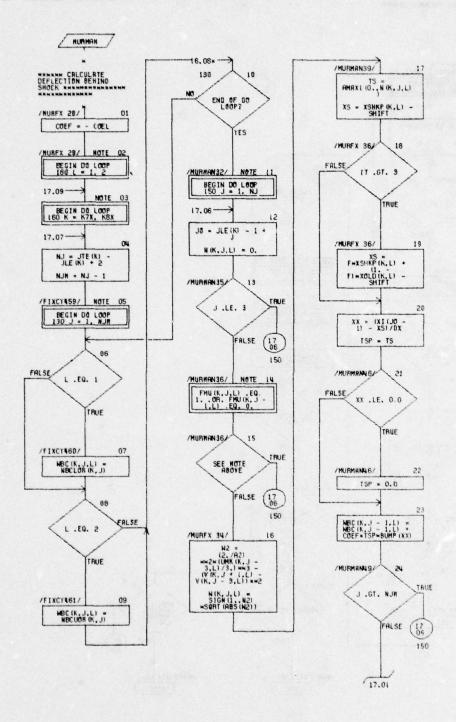


CHART TITLE - SUBROUTINE MURMAN IIT, XSHKP)

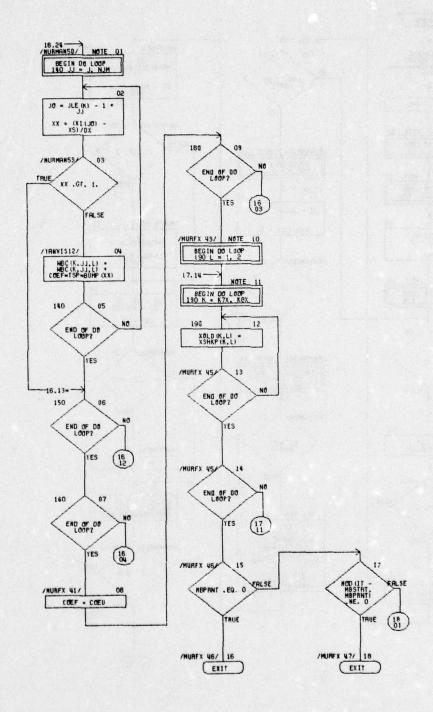


CHART TITLE - SUBROUTINE MURMAN IIT, XSHKP)

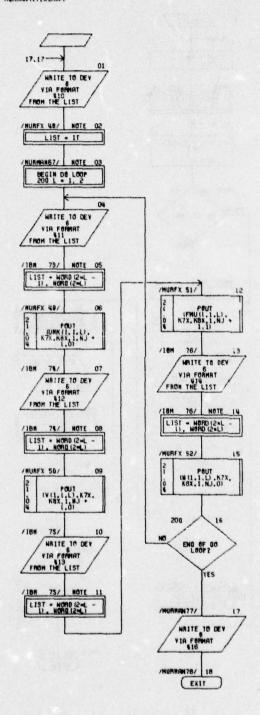
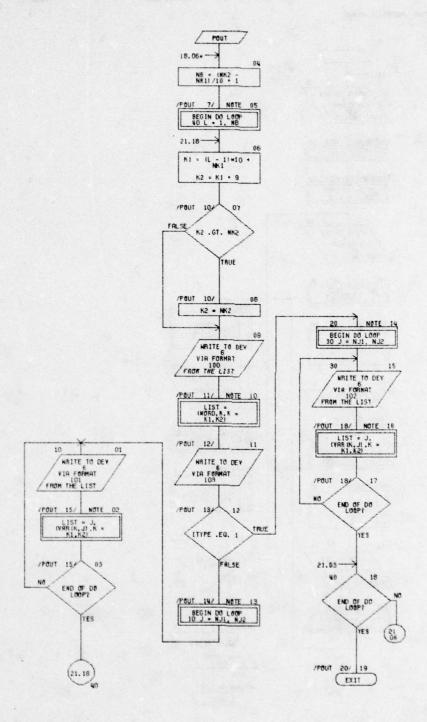


CHART TITLE - SUBROUTINE POUT (VAR, MK1, NK2, NJ1, NJ2, ITYPE)



## FLOW CHART - 25

Subroutine	Autoflow Page
XLDX	1 1
QUIKX	3 - 5
SAVSOL	8 - 11
GRAPH	15 - 20
DSTPLT	23 - 24
SLETE	26

CHART TITLE - FUNCTION XLDX (KLAST)

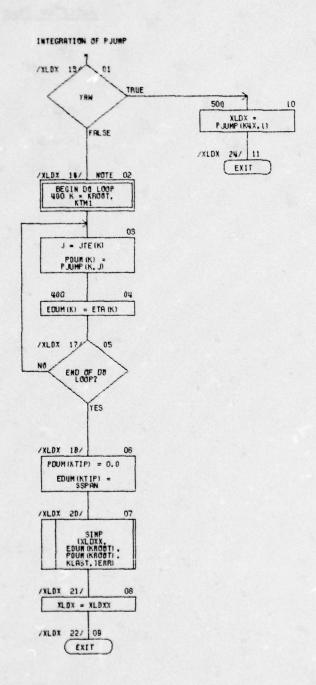
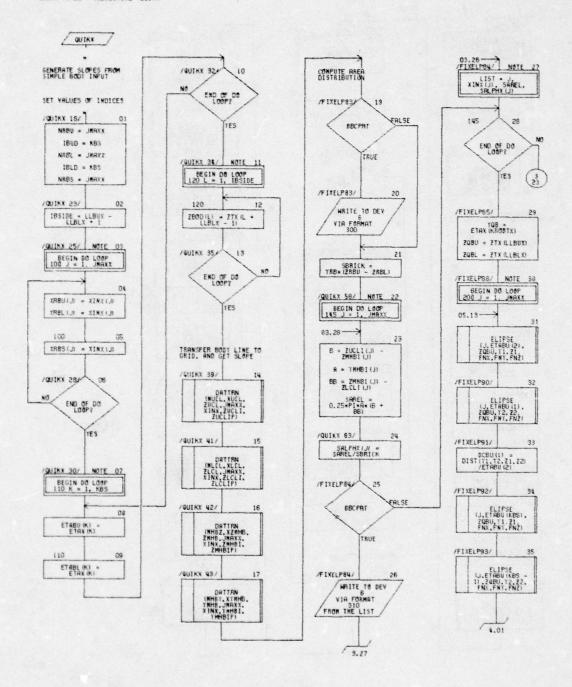
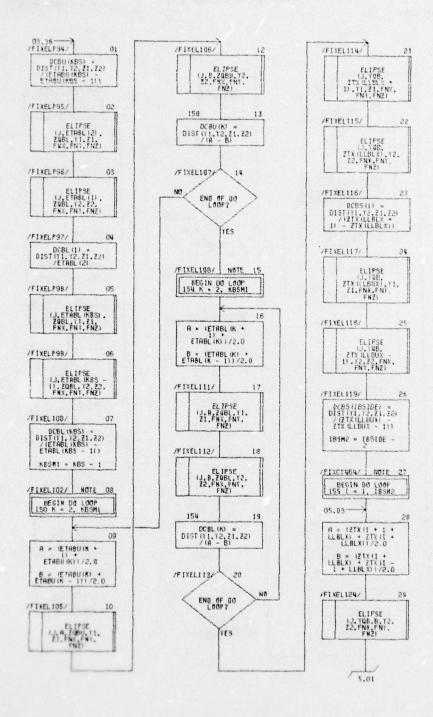


CHART TITLE - SUBROUTINE QUIKX





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CHART TITLE - SUBROUTINE QUIKY

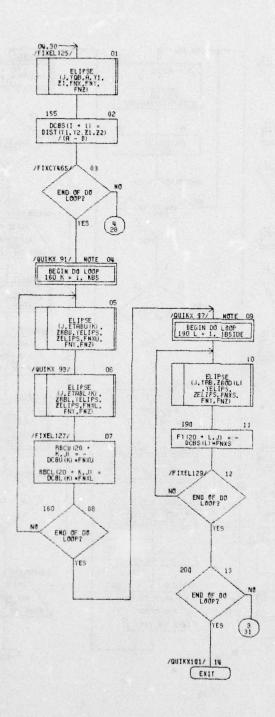


CHART TITLE - SUBROUTINE SAVSOL ITTERI

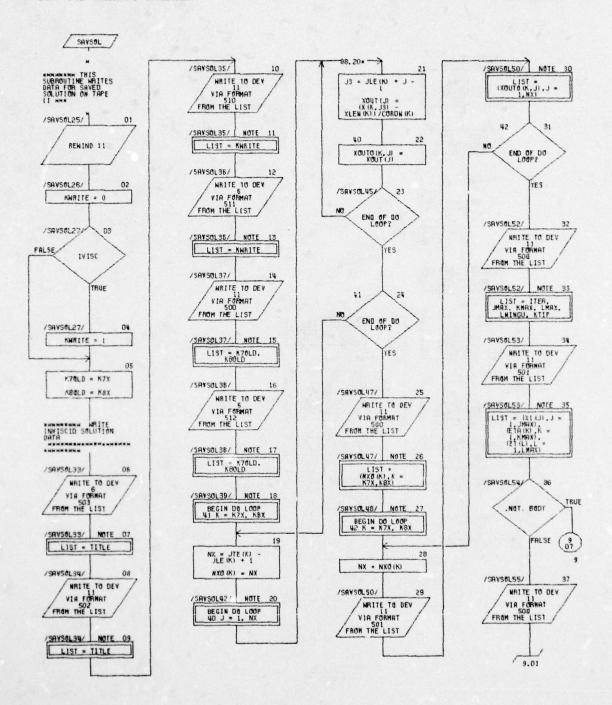
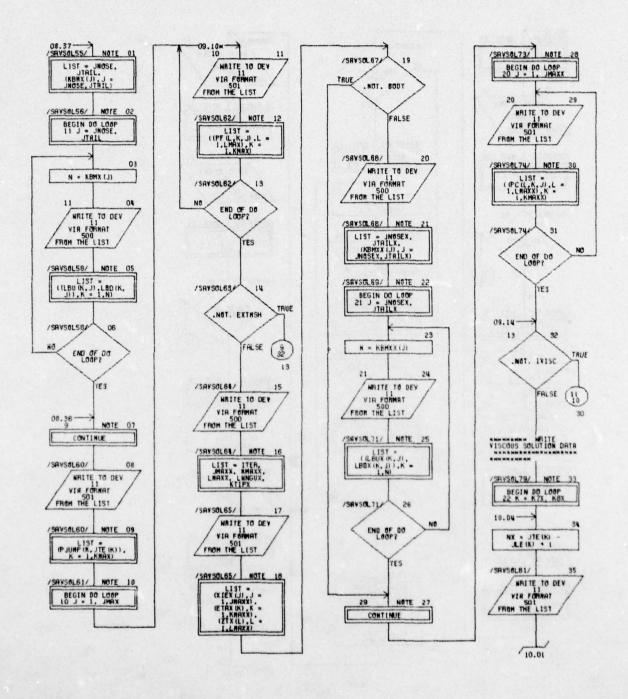


CHART TITLE - SUBROUTINE SAVSOL HITER)



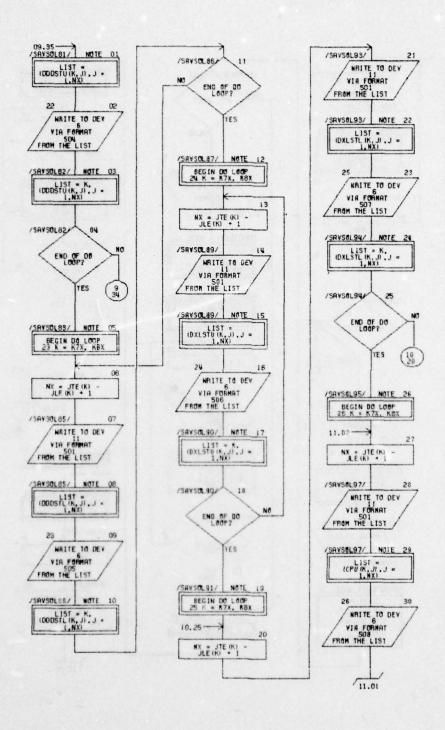


CHART TITLE - SUBROUTINE SAYSOL (ITER)

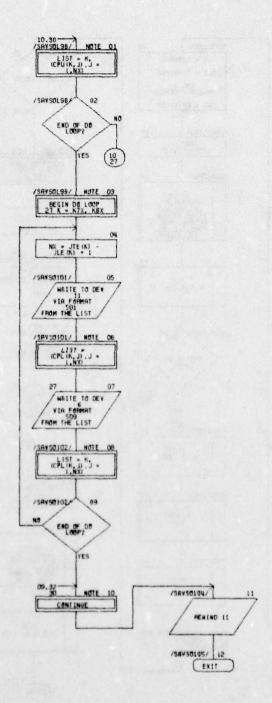


CHART TITLE - SUBROUTINE GRAPH (CPU, CPL)

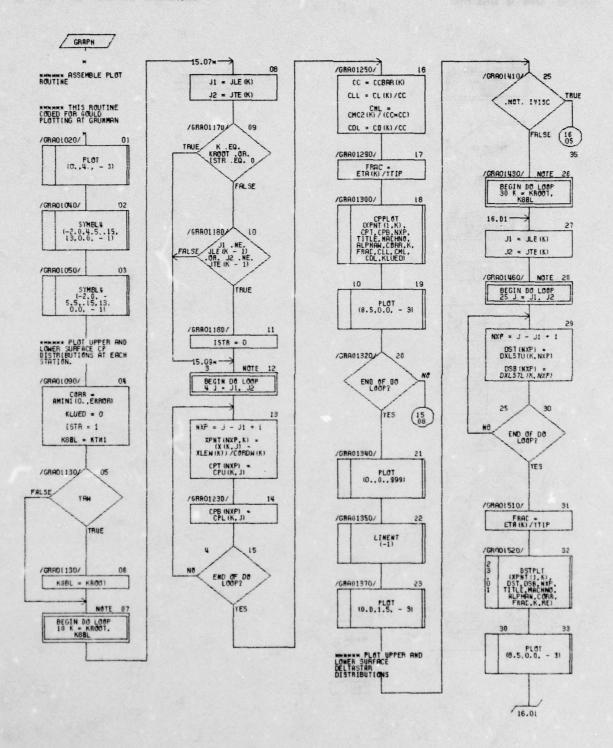


CHART TITLE - SUBROUTINE GRAPH (CPU, CPL)

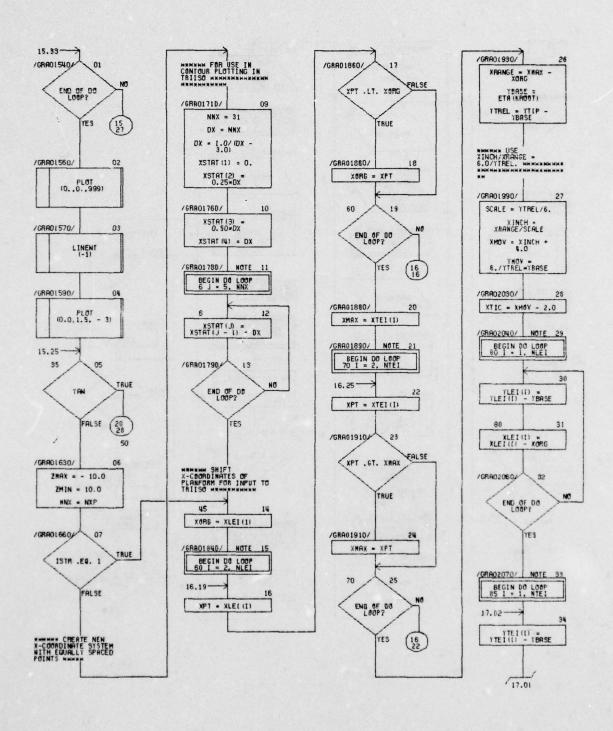


CHART TITLE - SUBROUTINE GRAPH (CPU, CPL)

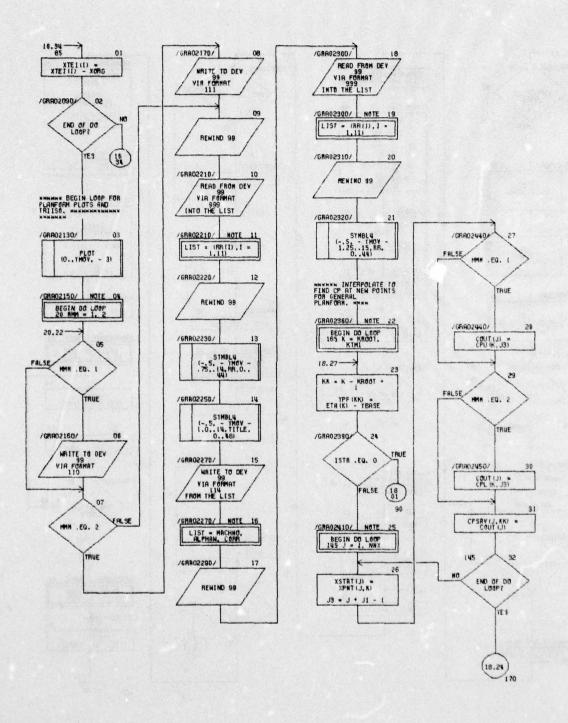
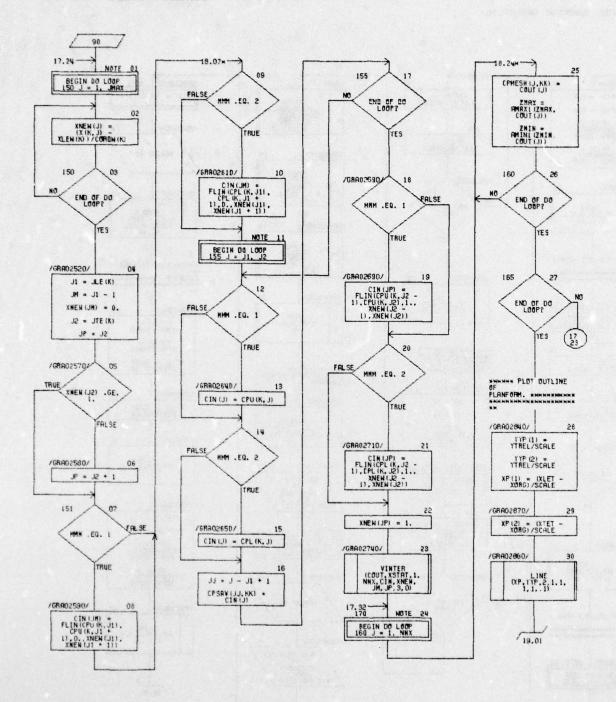


CHART TITLE - SUBROUTINE GRAPH (CPU.CPL)



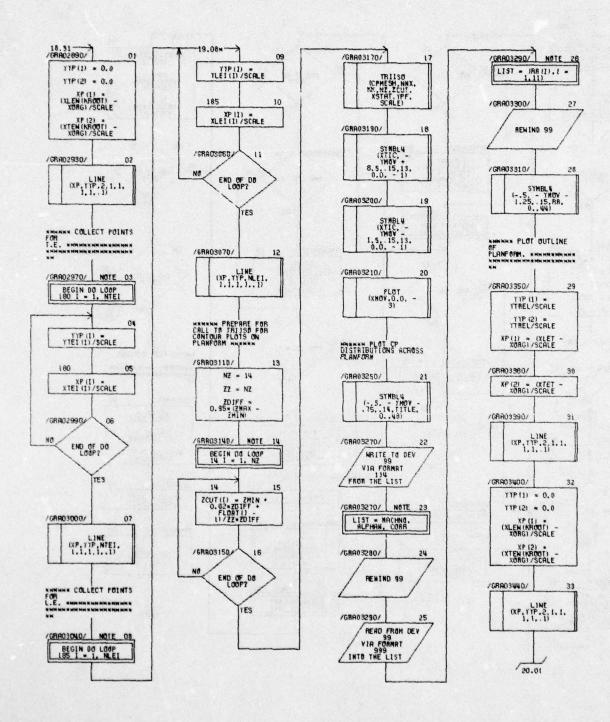


CHART TITLE - SUBBOUTINE GRAPH (CFU, CPL)

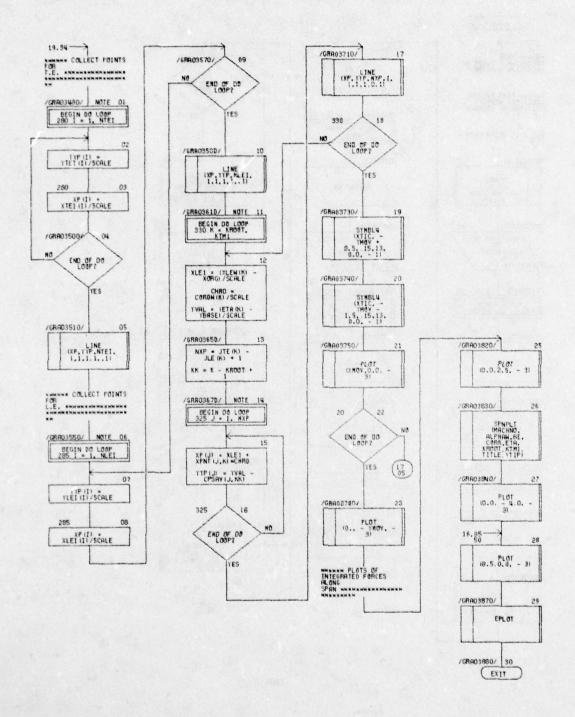


CHART TITLE - SUBROUTINE DSTPLT IXX. DSTART, DSTARD, NMAX, TITLE, FNACH, ANGLE, ERROR, F

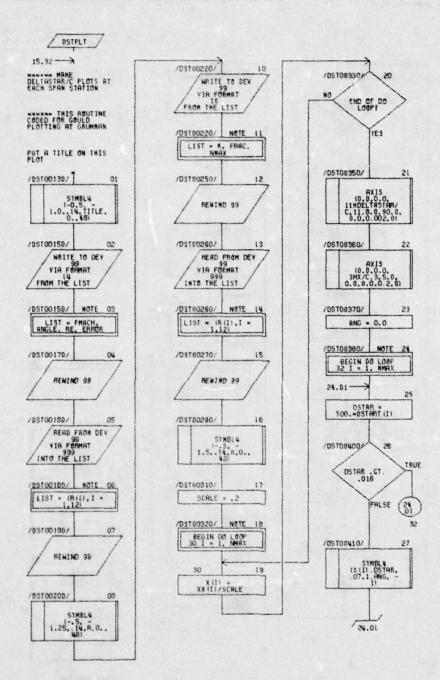
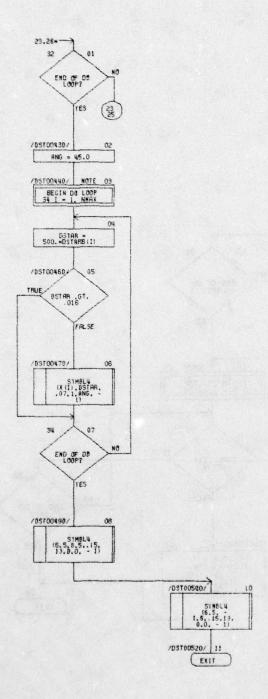
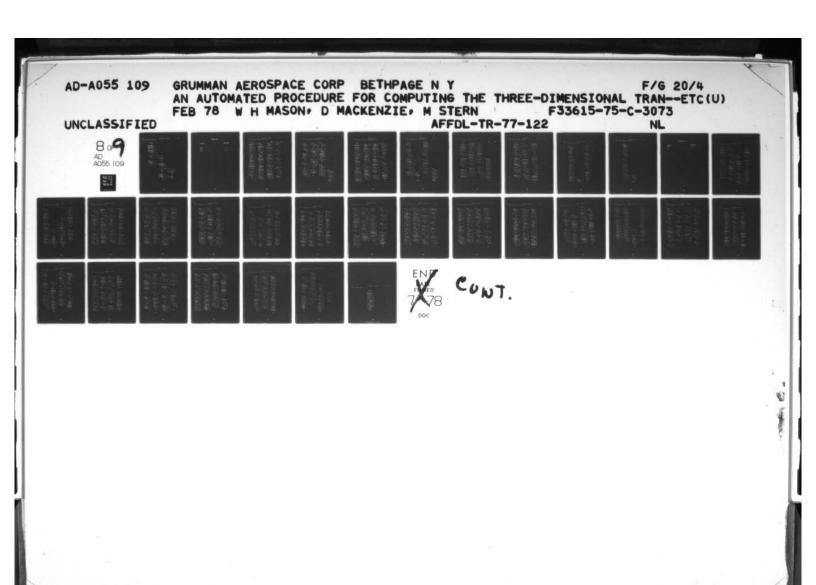
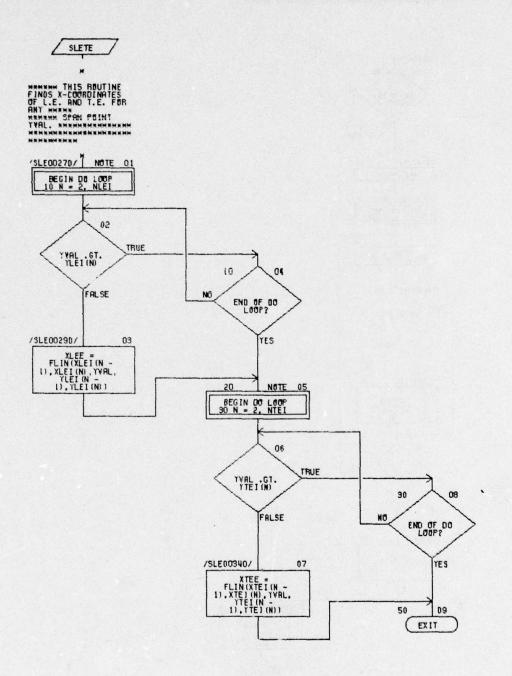


CHART TITLE - SUBADUTINE DSTPLTIXX, DSTART, DSTARB, NMAX, TITLE, FHACH, ANGLE, ERROR, F





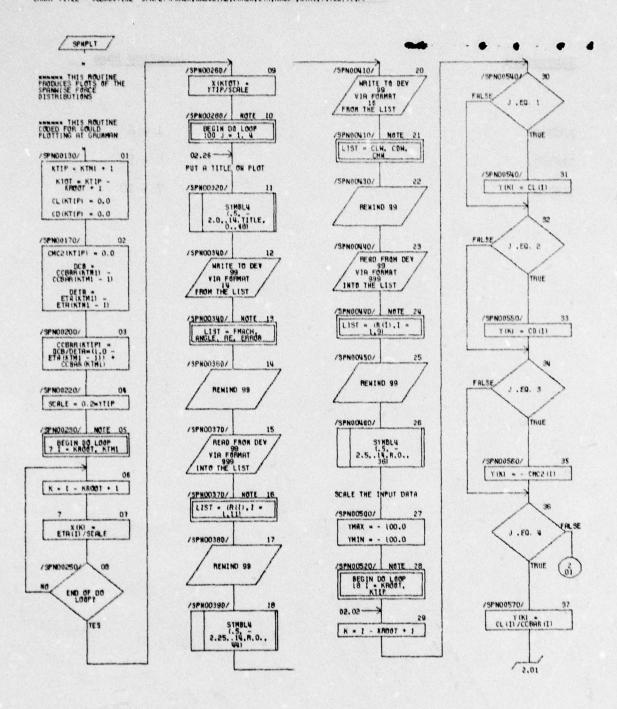
## CHART TITLE - SURRAUTINE SLETE (TVAL, XLEE, XTEE)



## FLOW CHART - 26

Subroutine	Autoflow Page
SPNPIT	1 - 2
CPPLOT	4 - 5
TRIISO	7 - 10

CHART TITLE - SUBROUTINE SPAPLT FARCH, ANGLE, RE, ERROR, ETA, KROOT, KTM1, TITLE, YTIP)



1.65

CHART TITLE SUBROUTINE SPAPET IFMACH, ANGLE, RE, ERROR, ETA, KROOT, KTM1, FITLE, YTIP)

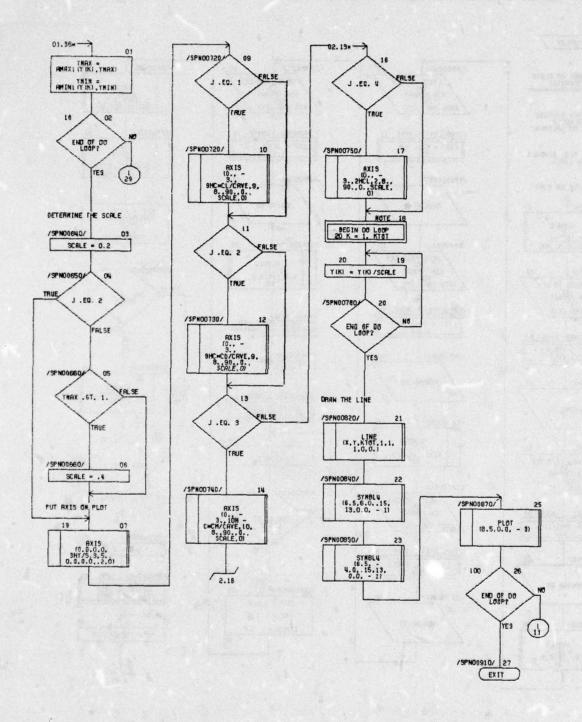


CHART TITLE - SUBMOUTINE CEPLOT IXX.CPU.CPL. MMRX.TITLE, FMACH. ANGLE, ERROR. K. FRAC.

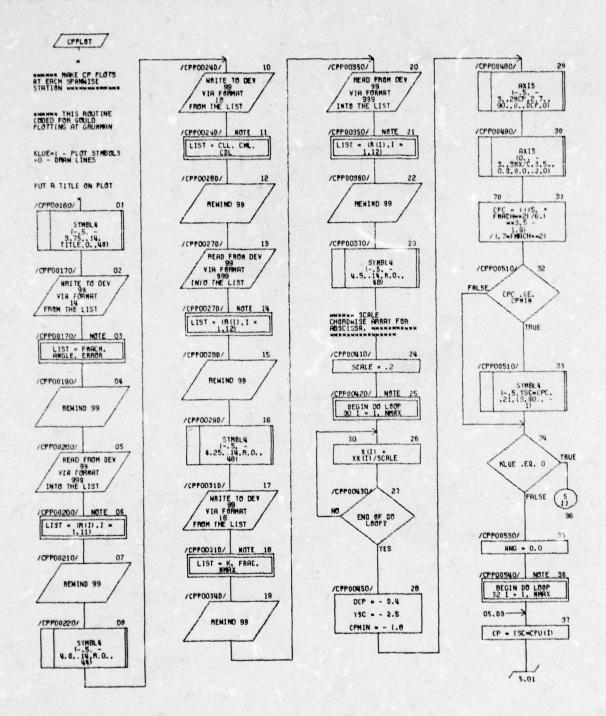


CHART TITLE - SUBROUTINE CPPLOTIXX.CPU.CPL. NNAX.TITLE.FMACH.RNGLE.ERROR.K.FRAC.

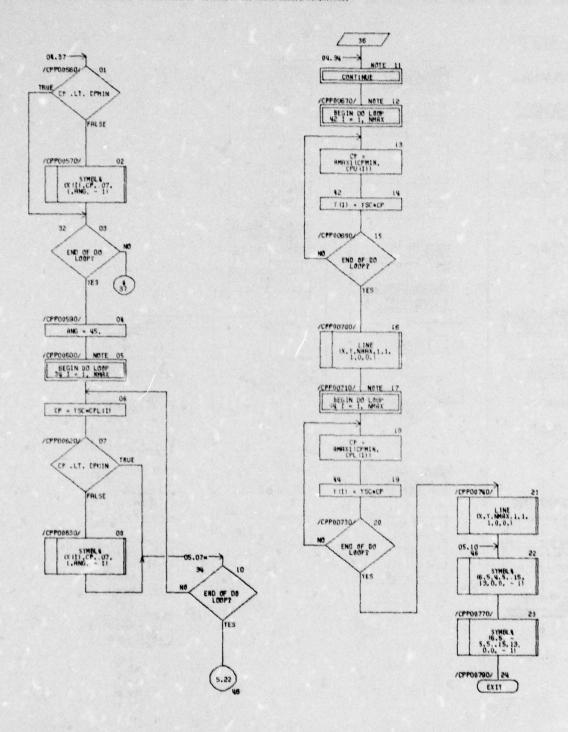


CHART TITLE - SUBBOUTINE THIISO ICPMESH. NX.NY.NZ.ZCUIS. XM. TH. SCALE)

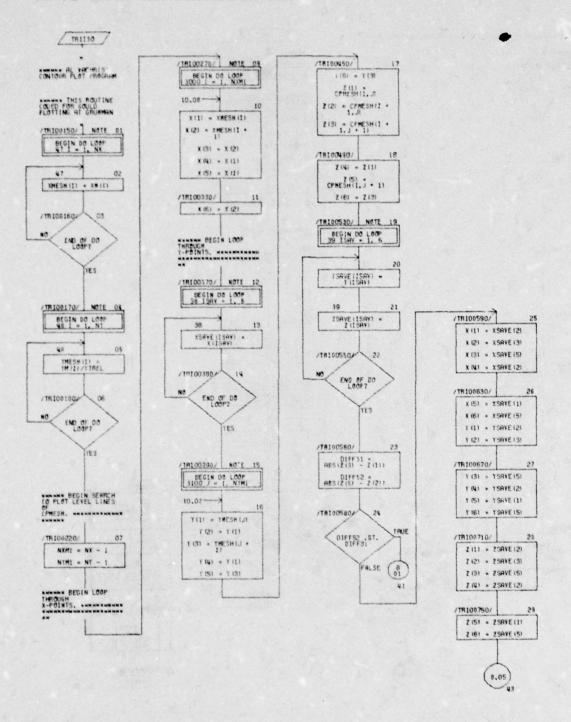


CHART TITLE - SUBMOUTINE TRIEST ICPNESH, NX, NY, NZ, ZCUTS, XM, YM, SCALE)

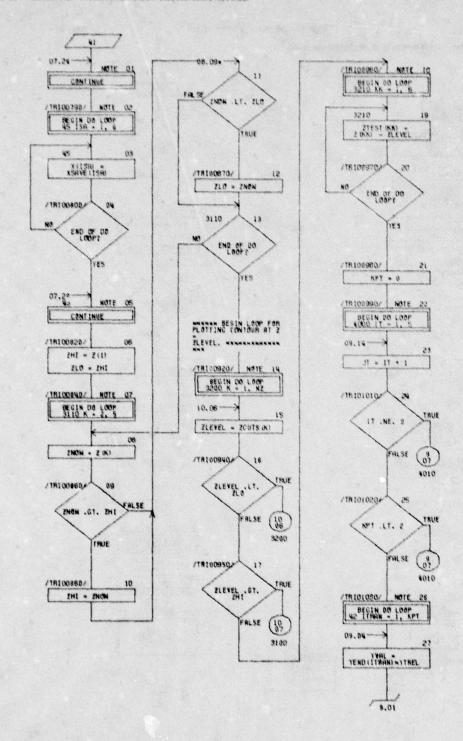
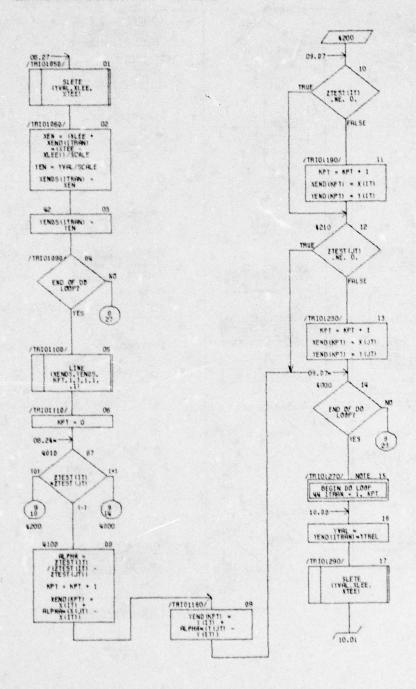
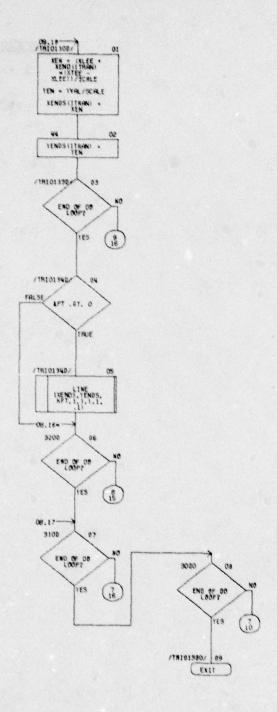


CHART TITLE - SUBMOUTINE THIS SCHESH, NX, NY, NY, ZCU'S, XM, YM, SCALES



CHRAT TITLE - SUBMOUTINE TRIESD ICPMESH. NX. NT. NZ. ZCUTS, XM. YR. SCRLED



## FLOW CHART - 27

Subroutine

GEOMVR

Autoflow Page

1 - 21

TICK

25

CHRAT TITLE - SUBSCOTINE GEORGE III. 12. 13. 14. 15. 16.17. (8. 19. TEST)

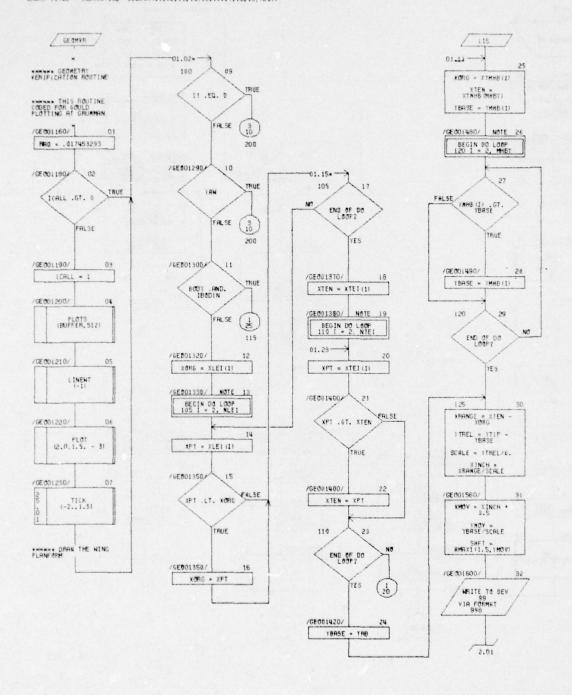


CHART TITLE - SUBROUTINE GEOMYR (11.12.13.14.15.16.17.18.19.1EST)

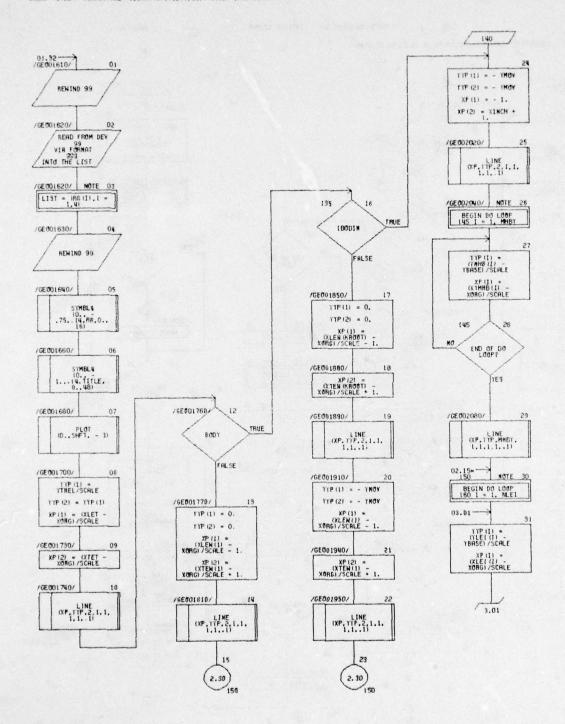


CHART TITLE - SUBROUTINE GEONYN (11.12.13.14.15.18.17.18.19. TEST)

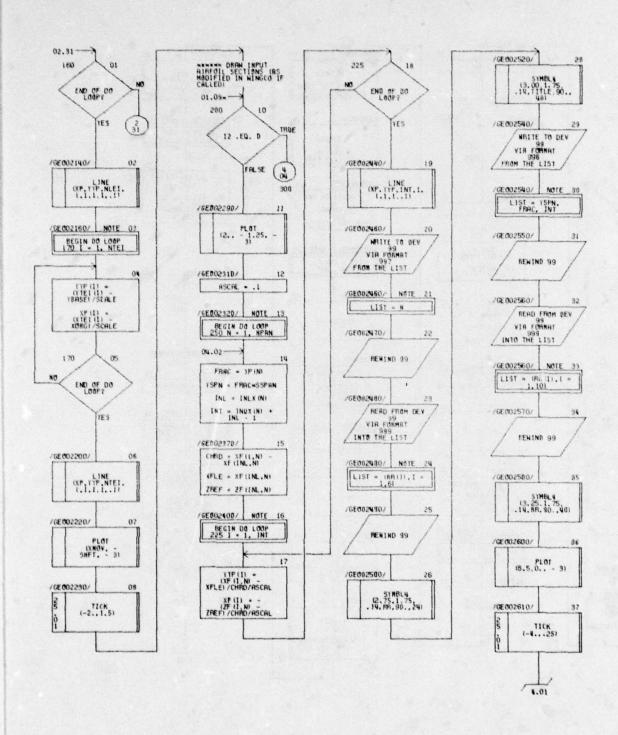


CHART TITLE - SUBROUTINE GEOMMR 11: .12.13.14 15.16.17.18.19.1EST)

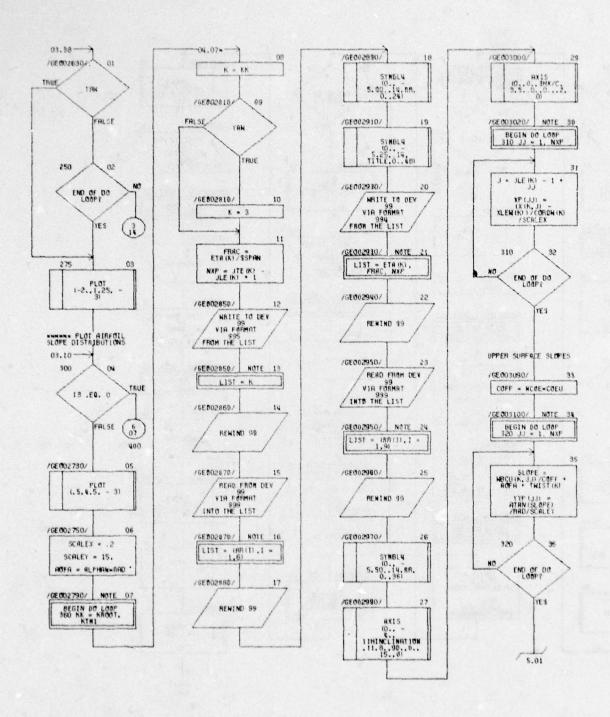


CHART TITLE - SUBROUTINE GEONVE !! . 12. (3. 14. 15. 16. 17. (8. 19. TEST)

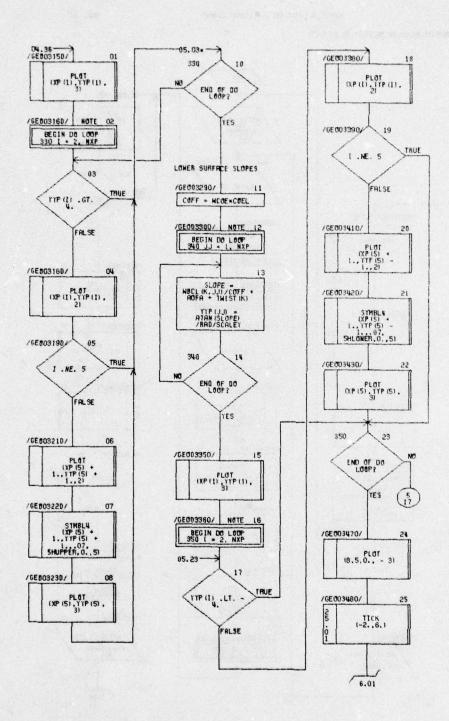


CHART TITLE - SUBMOUTINE GEOMAR (11.12.13.14.15.16.17.18.19.TEST)

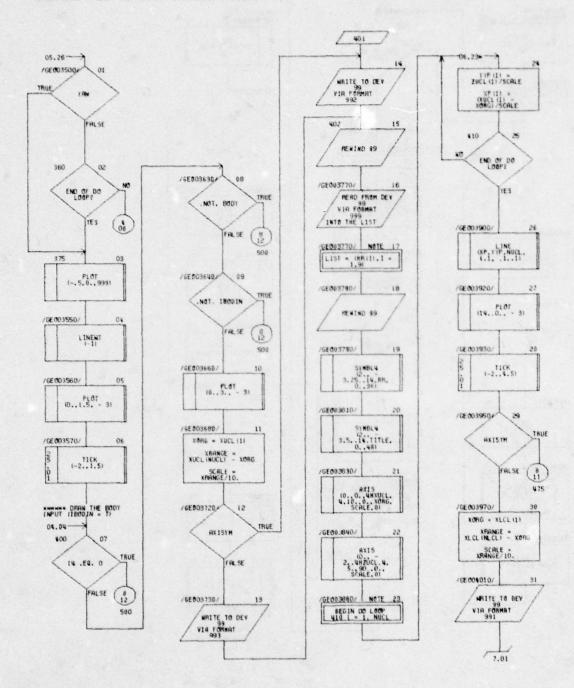


CHART TITLE - SIRROUTINE GEORN'S 111, 12, 13, 14, 15, 16, 17, 18, 19, TEST)

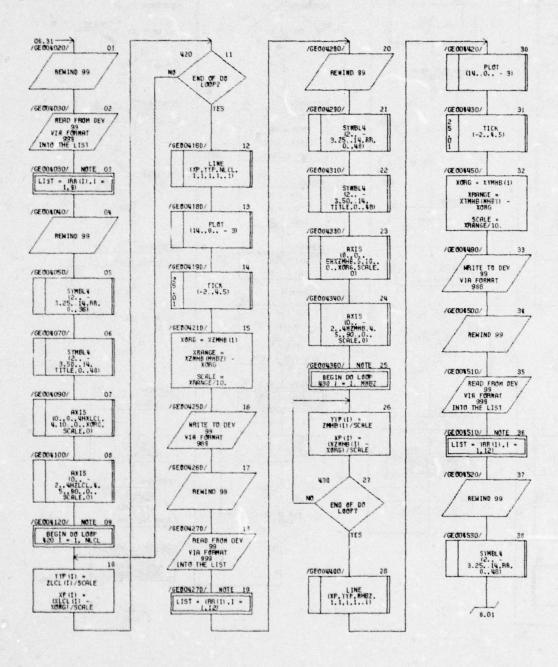


CHART TITLE - SUBBOUTINE GEONNE (11.12.13.14.15.16.17.18.19.TEST)

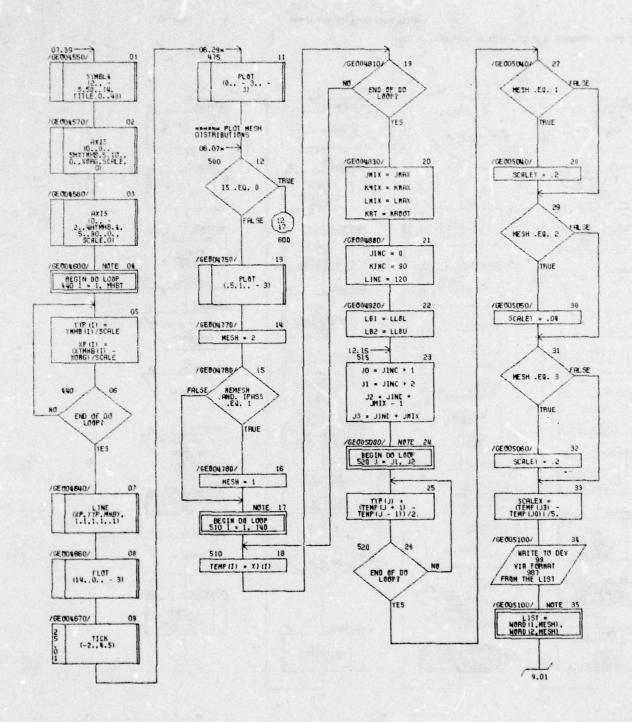


CHART FITLE - SUBROUTINE GEOMYR (11, 12, 13, 14, 15, 16, 17, 18, 19, TEST)

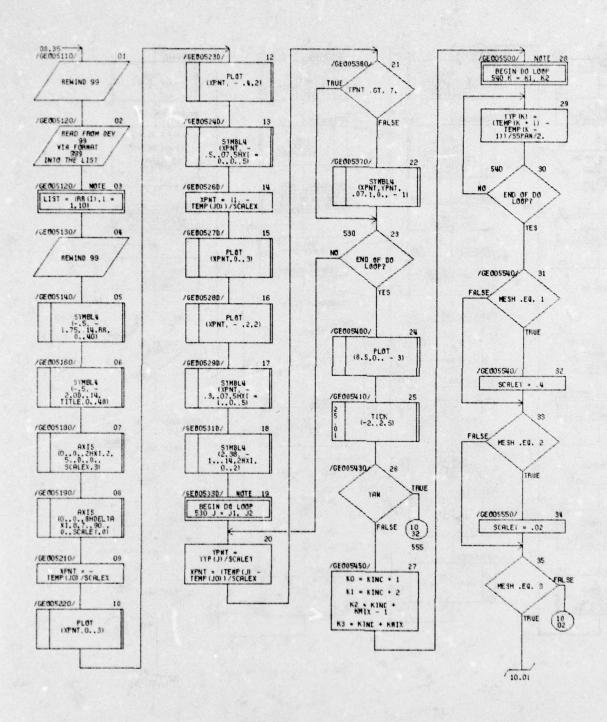


CHART TITLE - SUBROUTINE GEONVE 111.12.13.14.15.16.17.18.19. TEST)

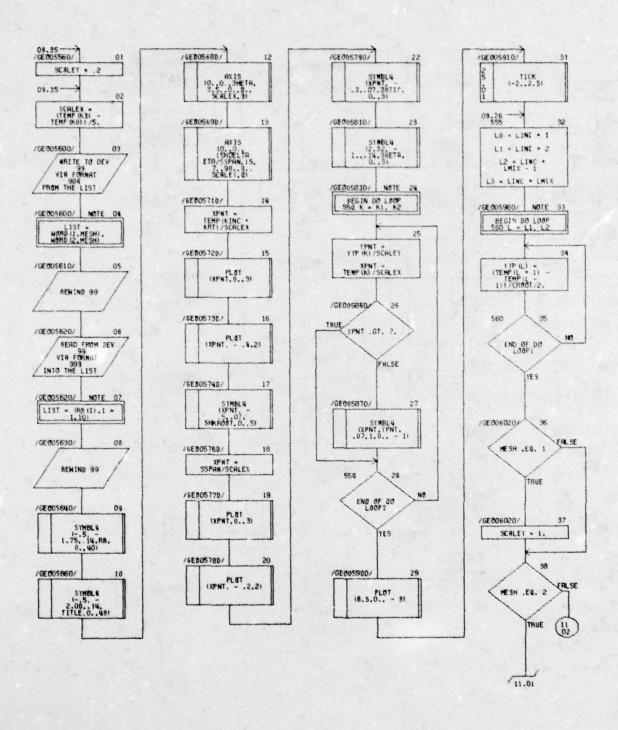
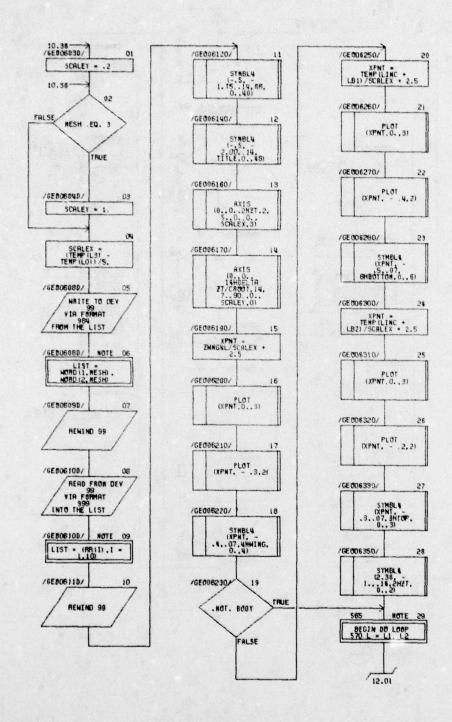


CHART TITLE - SUBMOUTINE GEONVE (11.12, 13.14, 15.16.17.18.19, TEST)



CHRRY TITLE - SUBBOUTINE GEOMARITE. 12, 13, 14, 15, 16, 17, 18, 19, TEST)

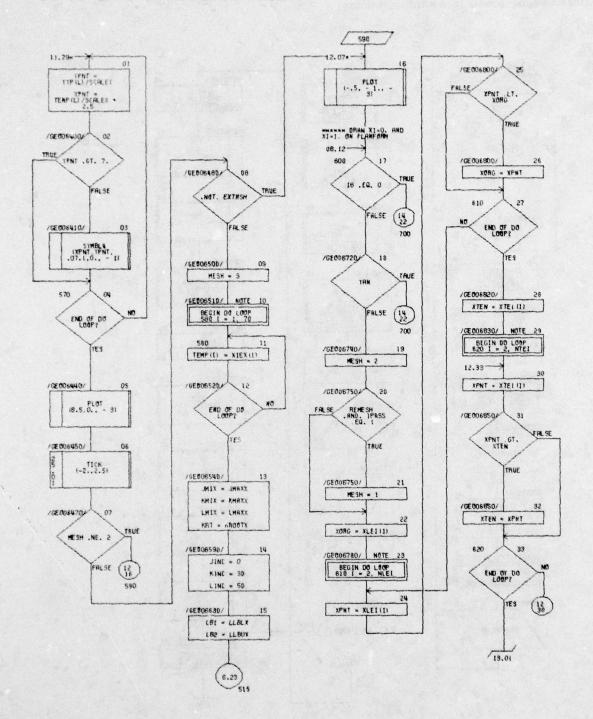


CHART TITLE - SUBROUTINE GEOMYR (11.12.(3, 14.15.16.17.(8.19. TEST)

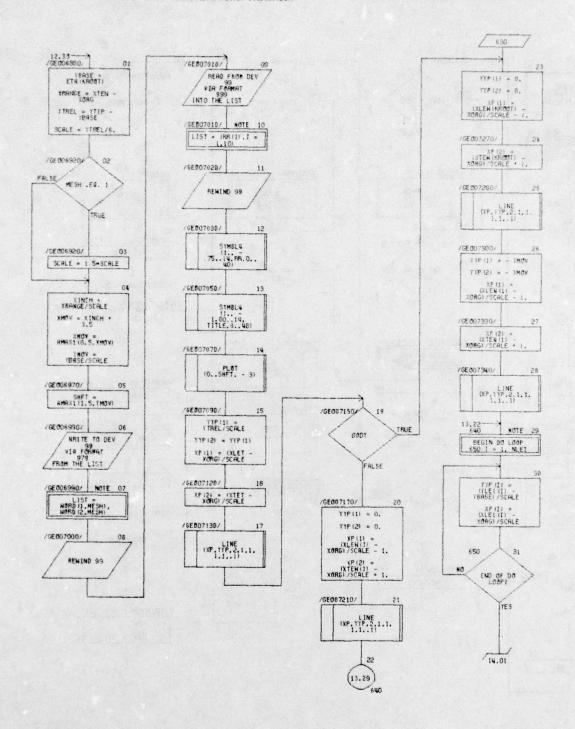


CHART TITLE - SUBMOUTINE GEOMAR (11.12.13.14.15.16.17.18.19. TEST)

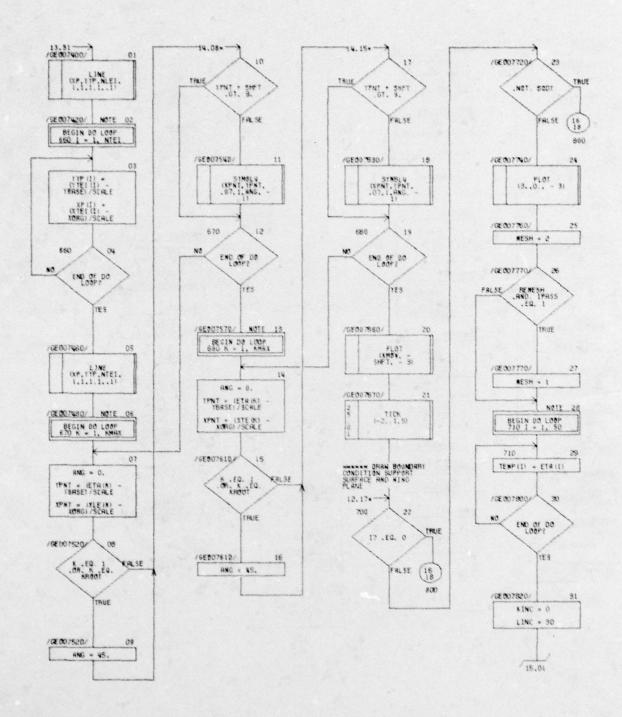


CHART TITLE - SUBROUTINE GEONVE (11.12.13.14.15.16.17.(8.19.TEST)

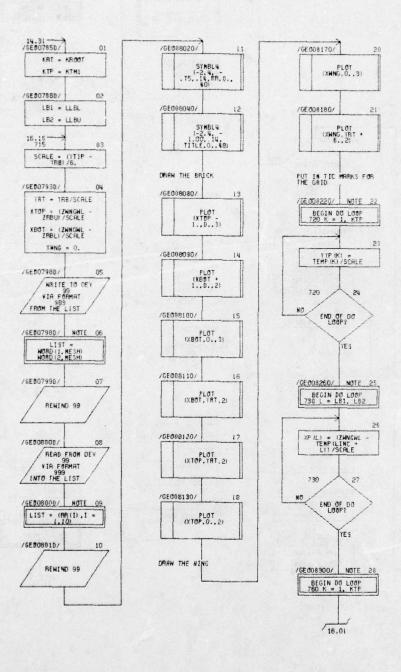
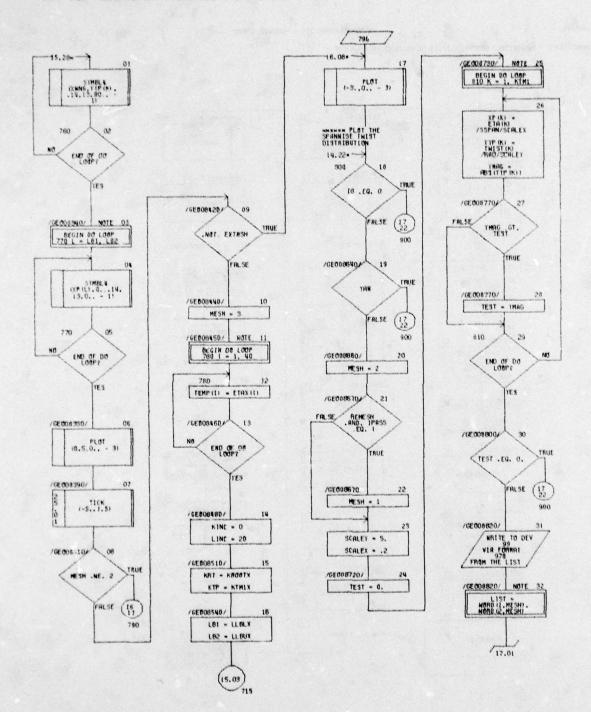
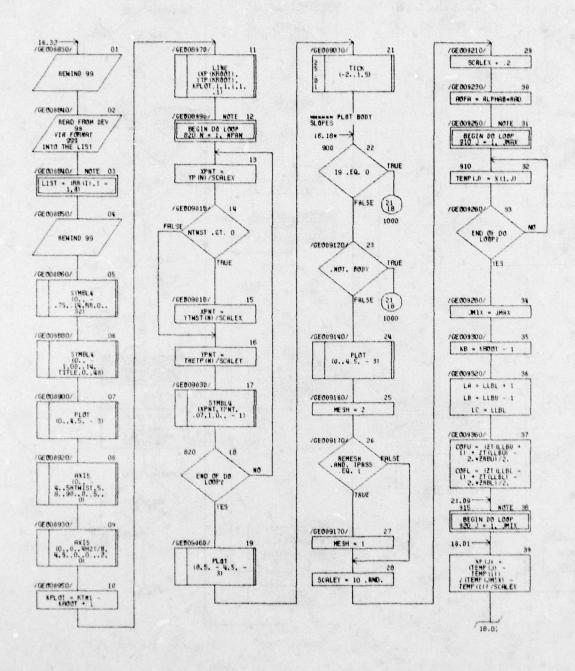


CHART TITLE - SUBROUTINE GEORGE (11, 12, 13, 14, 15, 16, 17, (8, 19, TEST)



CHRRI TITLE - SUBMOUTINE GEOMORIII.12, 13, 14, 15, 18, 17, 18, 19, TEST)



CHRRT TITLE - SUBMOUTINE GEOMAR (11.12.13.14.15.16.17.18.19.TEST)

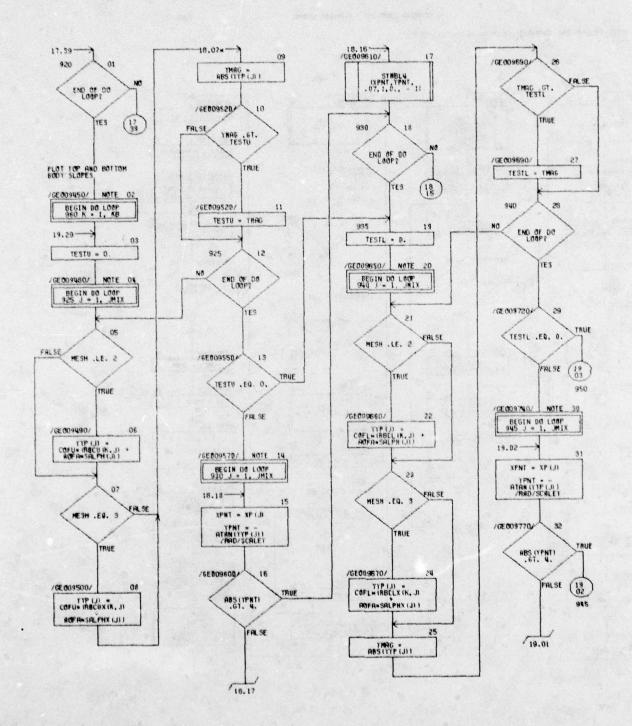


CHART TITLE - SUBROUTINE GEOMVR 111. 12. (3. 14. 15.16.17. (8. 19. TEST)

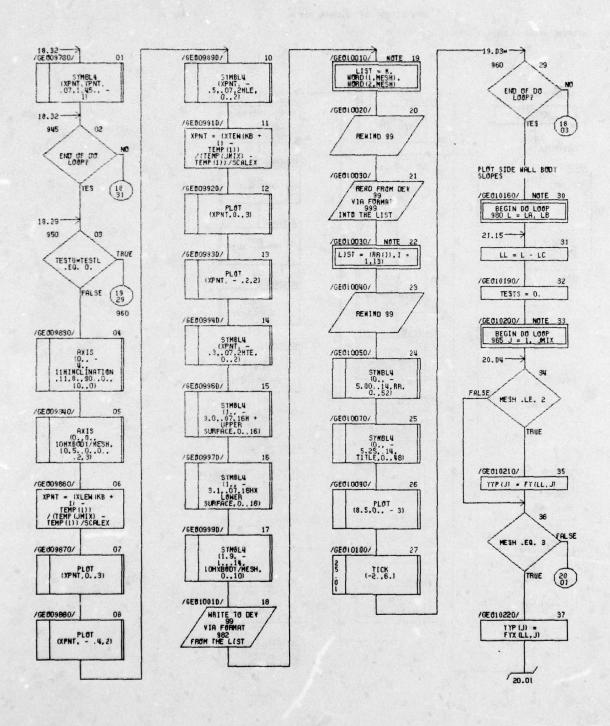


CHART TITLE - SUBBOUTINE GEONVE (11, 12, 13, 14, 15, 16, 17, 18, 19, TEST)

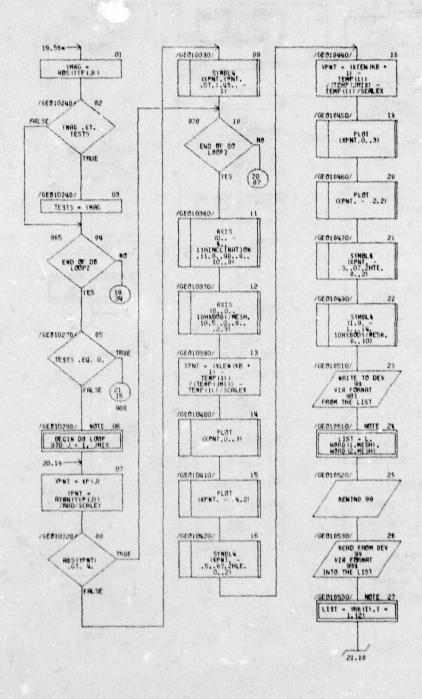
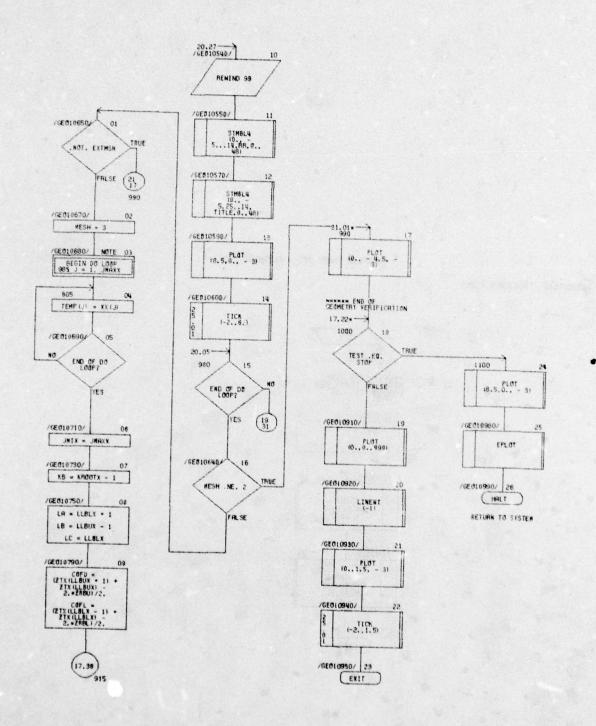


CHART TITLE - SUBBOUTINE GEOMMRIIL.12.13, 14.15,16.17.18.19. TEST)

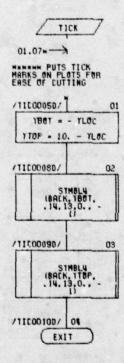


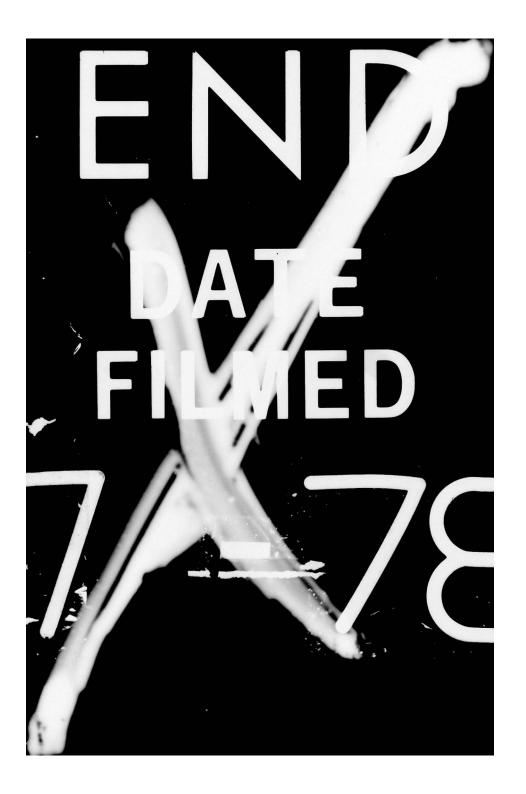
10/27/17

AUTOFLOW CHART SET - FLOCHART TICK

PAGE 25

CHART TITLE - SUBROUTINE TICK (BACK, TLOC)





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AN AUTOMATED PROCEDURE FOR COMPUTING THE THREE-DIMENSIONAL TRANSONIC FLOW.. (U) GRUMMAN AEROSPACE CORP BETHPAGE N Y W H MASON ET AL. FEB 78

UNCLASSIFIED

END

STREET

OTHER STREET

END

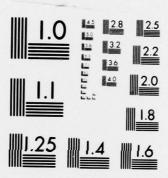
STREET

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NL

AUTOMATED PROCEDURE FOR COMPUTING THE THREE PROPERTY OF THREE PROPERTY



MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A

## SUPPLEMENTARY

## INFORMATION

Errata

AD-A055 109

The master copy is no longer available. Pages 571 thru 578 are missing and are not available per the author.

DTIC-DDAC 4 Mar 83

